An Introduction To Comparative Philology

The Late Dr. P. D. Gune

POONA ORIENTAL BOOKHOUSE

AN INTRODUCTION TO COMPARATIVE PHILOLOGY

With an Introduction by
Dr. S. CHATTERJI
M.A. Ph.D.

By
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AN INTRODUCTION
TO
COMPARATIVE PHILOLOGY

BY

the late Dr. PANDURANG DAMODAR GUNE

M. A. (Bombay), Ph. D. (Leipzig);

(*Professor of Sanskrit, Fergusson College, Poona*)

EDITED BY

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M. A. (Bombay)

(With supplementary notes, appendices, glossary, charts and maps and brought up-to-date)

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By

N. P. GUNE

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DEDICATED

TO

the sacred memory

of

my Mother.

FROM

THE VĀGAMBHṚNĪ SŪKTA

बृहस्पतेः प्रथमं वाचो अग्रं
यत्प्रैरत नामधेयं दधानाः ।
यदेषां श्रेष्ठं यदरिप्रमासीत्
प्रेणा तदेषां निहितं गुहाविः ॥

सक्तुमिव तितउना पुनन्तो
यत्र धीरा मनसा वाचमक्रत ।
अत्रा सखायः सख्यानि जानते
भद्रैषां लक्ष्मीर्निहिताधि वाचि ॥

यज्ञेन वाचः पदवीयमायन्
तामन्वविन्दन्नृषिषु प्रविष्टाम् ।
तामाभृत्या व्यदधुः पुरुत्रा
तां सप्तरेभा अभिसंनवन्ते ॥

अधैन्वा चरति मायेयैष
वाचं शुश्रुवाँ अफलामपुष्पाम् ।
यस्तित्याज सचिविदं सखायम्
न तस्य वाच्यपि भागो अस्ति ॥

यदीं शृणोत्यलकं शृणोति
न हि प्रवेदं सुकृतस्य पन्थाम् ॥
इमे ये नार्वाङ् न परश्चरन्ति
न ब्राह्मणासो न सुतेकरासः ।
त एते वाचमभिपद्य पापया
सिरीस्तन्त्रं तन्वते अप्रजज्ञयः ॥
सर्वे नन्दन्ति यशसागतेन
सभासाहेन सरव्या सखायः ।
किल्बिषस्पृत् पितुषणिर्ह्येषाम्
अरं हितो भवति वाजिनाय ॥
ऋचां त्वः पोषमास्ते पुपुष्वान्
गायत्रं त्वो गायति शकरीषु ।
ब्रह्मा त्वो वदति जातविद्याम्
यज्ञस्य मात्रां वि मिमीत उत्वः ॥

— ऋग्वेद, १०.७१.११.

DR. P. D. GUNE, M. A., Ph. D.

Born 20 May, 1884] [Died 25 Nov., 1922

सं गच्छस्व पितृभिः संयमेने-ष्टापूर्तेन परमे व्योमन् ।
हित्वायावद्यं पुनरस्तमेहि सं गच्छस्व तन्वा सुवर्चाः ॥

PREFACE

This little book is the outcome of a course of postgraduate lectures that I delivered in 1916–17 at the Bombay University. In its attempt at organising the teaching side, the Senate has instituted a course of post-graduate lectures in Indian Classical Languages, Philosophy, Indian History and Economics. I was invited to deliver twenty-four lectures on Comparative Philology and the Nirukta. The eighteen lectures which I devoted to the former subject form the basis of the present volume. I had to rearrange and partly rewrite the whole thing in order to suit the book form.

I believe I need offer no apology for writing this book. The University has introduced Philology amongst the subjects to be studied by candidates for the M. A. who offered languages. There are already some excellent introductions to Comparative Philology, but unfortunately they are not available to our students as they are written in the French, German and Russian languages. Secondly, they are of a general character and, as a rule, written with reference to the European classical and modern languages. GILES' *Manual of Comparative Philology* is the only useful book in English, but it has reference to the Teutonic and Classical languages. A book, therefore, which combined principles of the Science of Language with practical illustrations from the Indian branch of the Indo-Germanic family was wanted; and I have tried to supply the need.

I have divided the book into five parts. The first part deals at some length with the principles of the Science. In this I have drawn the illustrations from the Indian languages

along with others. The second part is a small one, but it was necessary in order to show the relationship between the European and the Indian Aryan languages. I have called it 'Families of Languages.' The third part treats of the Avesta and ancient Sanskrit and is intended to present a comparative picture of the two old languages. The fourth part deals with the next stage in the development of Indian languages and is called 'Pāli and the Inscriptional Prākrits'. The last part bears the title 'the literary Prākrits and the modern Vernaculars'. The latter portion of this part has been necessarily brief and at some places suggestive only, as most of the modern vernaculars lack well written historical grammars. A detailed and scientific comparison of these will be possible only after such grammars become available. However valuable in other respects, I must say that the 'Linguistic Survey' cannot form the basis of comparison, because it is necessarily of a sketchy character and deals with specimens of the vernaculars in their latest phase only.

For convenience of printing, I have followed the Greek method in marking accent of Sanskrit words, and marked *udātta* only.

I have acknowledged the help of my literary predecessors in the list of books consulted. The deepest debt of gratitude that I owe is to Professors Brugmann and Windisch of the Leipzig University, who initiated me into Comparative Philology and Pāli Inscriptology respectively.

Before closing, I must thank my colleagues Prof. K. N. DRAVID and Mr. N. B. UTGIKAR M. A., for having kindly gone through part of the proofs, and Professors G. C BHATE and G. H. KELKAR for having gone through the whole for correction of such mistakes as might have still remained. The credit of the index at the end is entirely due to my friend Mr. UTGIKAR. Lastly I must express my obligation to Mr. Anant

Vinayak Patwardhan, Manager of the Aryabhushan Press, for having struck new types for some Greek, Gothic, and Avesta words, and generally deferring to my convenience and time. To Dr. Sardesai of the Oriental Book-supplying Agency is due the entire credit of the publication of the book itself, for had he not undertaken to do so, my wish to publish it would have remained a wish only.

FERGUSSON COLLEGE,
Poona, July, 1918.

P. D. GUNE.

The Editor's Foreword

This handy volume on the science of Comparative Philology was first printed in 1918 and it soon acquired a scarcity value as it went out of print but long remained in demand as it so competently leads the young student into the laws and principles of Indo-European and Indo-Aryan linguistics. Among its principal qualities were a breadth of vision, inductive method, freedom from dogmatic assertion, clearness of statement and adequate illustration which did not escape the notice even of European critics. In placing its second impression in the young student's hand, I have submitted the printing of it to a thorough revision, and in its present form, therefore, it is a neat reprint of my revered Father's book, published by me as a memorial edition which has indeed been long over-due. In doing this, I derived inspiration from Dr. S. K. Chatterji, Dr. S. M. Katre and Prof P. K. Gode; in fact it was Dr. Katre who informed me that in the opinion of many senior Indian Linguisticians it was essential to reprint the book.

With the advice and blessings of the above-mentioned Savants I read all the reviews on the book and have brought out this impression in the light of suggestions found therein as

well as else-where. I found the reviews of Professors Silvan Levi and A. A. Macdonell most constructively helpful and of great assistance to me particularly in the correct printing of Greek words. I have also added a note on Greek Language and alphabet which the students will find greatly helpful in understanding the book. Students of English will find the note on IE, Germanic, and English very useful in their study of the Aryan affinities and of the foundations of English.

As it was necessary to bring the book up to-date and so to extend its utility, I have added three appendices or chapters on the more recent topics viz. Indo-Aryan and Hittite, The IE Wanderung and IE Urheimat in the New Perspective. I was greatly encouraged in this by Dr. Chatterji who also readily agreed to furnish this book with an Introduction. He has earned my gratitude for this. I must also express my thanks to Dr. R. N. Dandekar of the Poona University for his advice and suggestions as well as for his permission to use a part of some of his articles in the notes.

With a view to providing visual aid I have added two maps showing the extent of IA influence in India to-day and the IE relations in Europe and Asia. My thanks are due to the General Manager of the Oxford University Press (Indian Branch) for his permission to insert Dr. S. K. Chatterji's map of the Languages of India. The other sketch was made by me with the help of the map in the Linguistic Survey, but I have made an attempt to show the grasslands, the first settlements at Balkh and the Pripet Regions and the Hittite "push" in the Middle East, which the student will find very easy to visualize.

I cannot conclude this foreword without recording my thanks to Mr. D. K. Gondhalekar, Proprietor of the Poona Oriental Book House and Mr. B. G. Dhavale of the Karnatak Printing Press for undertaking the printing of this work in spite of more pressing demands on his time in these very difficult years of the post-war world.

I was assisted in the proof correction work by Dr. M. M. Patkar of the Deccan College Research Institute. The scheme of transcription followed in this book is the one commonly used in lexicons and dictionaries. Under the present circumstances in India, a phonetic representation of the Greek words in Roman transcription was not possible; and therefore the student will be well advised to rely on Greek illustrations. A key to Greek alphabet and pronunciation is provided on page 36 of the notes. I was advised to do away with the Nāgari alphabet altogether and to give Roman transliteration of Sanskrit, Marathi and Hindi words and passages; but I thought that this would be a great inconvenience to our students and so I have retained the Nāgari passages and words which are also given in Roman transliteration for the benefit of the European and American readers and students of the subject. I have to thank Mr. Patkar for his patient zeal and alertness in the correction work. The student is also advised to make himself thoroughly familiar with the Glossary which gives a short and lucid definition of every technical term used in the text.

Any critical suggestions and advice for the improvement of the book will receive proper consideration from me.

Kayakalpa,
F. C. Road,
POONA 4.
28 Feb. 1950.

N. P. GUNE

INTRODUCTION

I consider it a great honour to be asked to contribute an introduction to the second edition of the late Professor GUNE'S well-known work on Comparative Philology

Since its first publication in 1918, Professor GUNE'S book which was the pioneer work of its kind in India, has been in use all over India particularly amongst students of Sanskrit and Indian Languages, and has remained an authoritative text-book in most of the Universities of India for nearly two generations. A second edition was long over-due, and it is a matter of great personal gratification for me as a student and teacher of Indian Linguistics to find that with the help of an enterprising publishing agent of Poona, the late Professor's son, Prof N. P. GUNE, in a spirit of filial devotion to the memory of his illustrious father, has finally brought out the second edition.

Professor GUNE'S book, despite its deficiencies-its faults of commission and omission and its typographical handicaps (which were noted by competent critics like the late Prof A. A. MACDONELL of Oxford who were also quite appreciative of the merits of the work otherwise), has remained for Indian students, and even for students of Indian Linguistics abroad, the most convenient short work in a single volume giving the rudiments of general principles which form the basis or back-ground of all specialized study of a particular linguistic group or family, together with a sufficiently full narrative history elucidated by a wealth of illustrative examples of the Aryan speech in India through the centuries in its three stages of Old, Middle and New-Indo-Aryan. Professor GUNE had a very erudite predecessor who was one of the *pathikṛtas* or path makers in Indo-Aryan Linguistics viz the late Ramakrishna Gopal BHANDARKAR in his Wilson Philological Lectures, which were delivered as early as 1877 in the University of Bombay and were confined in the pages of the Journal of the Bombay

Branch of the Royal Asiatic Society (Vols XVI & XVII) until their final release in book form in 1914 from Bombay. In fact Professor GUNE'S work in its treatment of Middle and New Indo-Aryan frequently reminds us of the great Ramakrishna Gopal BHANDARKAR. But with his knowledge of the Indo-European background, Professor Gune had a wider vision. Subsequently Indian scholars have come forward to meet the need for works on general lingustics and on the lingustics of Indo-Aryan among our students apart from special works on the development of Indo-Aryan through intensive and exclusive study of the history of a single speech. We may mention the English work of Dr. I. J. S. TARAPOREWALA (first published from the University of Calcutta, in 1932, a second edition is expected to be out soon), and the following works in Indian Languages : Professor Mangal Deva SASTRI'S, Nalini Mohan SANYAL'S, Baburam SAKSENA'S and Syam Sunder DAS and Padma Narayan ACHARYA'S works in Hindi, S. Mohiyuddin QADRI'S in Urdu, and Sukumar SEN'S in Bengali. All these and a few more like Dr. Batakrishna GHOSH'S *Linguistic Introduction to Sanskrit* and Dr. S. M. KATRE'S works on Prakrit and on the general history of Indo-Aryan form a modest library gathering to-gether the contribution of modern Indian Scholarship to the science of Linguistics as established by Western scholars during the last three or four generations. Professor P. D. GUNE'S work stands at the head of this literature of Linguistics which is slowly gaining in volume (and in importance) in India.

The present second edition is not a mere reprint, it seeks also to extend the scope of the first edition in several matters. The three Appendices and the seven Notes are all new, and will certainly be very helpful, while they seek to complete the original work in certain topics of recent investigation. The Diagram of the Organs of Speech and the tables and charts, and the Linguistic map of India as well as the additional Biblio-

graphy and Glossary will also serve to enhance the utility of the book.

Thus the work is already a well-known work. Additional chapters have increased its utility. It is a work from which I have derived great help some thirty years ago when I was in the first stages of my career as a student and investigator of Indo-Aryan Linguistics. Some of the reviewers of the first edition found fault with the printing of the Greek words, and one was painfully conscious of this; but the original Greek words and forms are happily generally correctly printed in this edition, though their Roman transcriptions given in the brackets should have been more carefully printed. The students would be better advised to learn the Greek letters and take note of the original Greek forms (for which a key is furnished in note 1, page 38). There are a few transcriptions incorrectly printed which can be easily set right by the teacher and can be removed when a third edition of the book will be called for. I wish greater care were paid in this connexion.

These deficiencies notwithstanding the present edition gives in these days when good and faultless printing has become an exacting and expensive job, particularly in India, a very fine rendering of a very useful work. The paper and typography are both beautiful and inviting, the bright appearance of the book helping to make the reading of it very easy and pleasant. I trust that the work will have a renewed career of usefulness in the cause of a science which was very dear to the author, as it is to a great many of us in India and for the study of which among his compatriots the author was a pioneer. The book forms one of the best monuments to his memory; and may his memory as a scholar and educator remain for ever green through further editions of his *Introduction to Comparative Philology*.

University of Calcutta
20 February 1950

SUNITI KUMAR CHATTERJI

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AN INTRODUCTION TO COMPARATIVE PHILOLOGY

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PART I

PRINCIPLES

1. NAME OF THE SCIENCE.—Comparative Philology or simply Philology is the science of language. Philology strictly means the study of a language from the literary point of view. In Germany as elsewhere in Europe, Philology still means study of the literature of any people. Thus there are at every German University *Klassische Philologen* and *Romanische Philologen,* meaning Professors who have studied and are now teaching classical literature, Romance literature etc. But when this new science, one of the many new acquisions bequeathed to us by the 19th century, came into being, it usurped for itself the name of Comparative Philology. Comparative Grammar is a name less inclusive than Comparative Philology, although perhaps less faulty. Science of language is a comprehensive and exact name for our science and some scholars prefer it to the more usual Comparative Philology.

2. AIM AND OBJECT.—Sanskrit, Persian, Greek, Latin, Celtic, Teutonic, Slavonic, Litho-lettish, Armenian and Albanian languages show a similarity in grammar and vocabulary. In the same way Hebrew, Assyrian, Arabic, Aethiopean, Syriac also appear to form a group by themselves, having resemblances to one another, but not to any one of the former group. Certain African people speak languages which are very similar in

grammar and vocabulary. Similarly our south Indian languages—Telugu, Tamil, Malayālam, Kanarese form a group by themselves.

These resemblances enable us to put forward several groups or families of languages, viz., the Indo-European or Indo-Germanic as it is more usually called, the Semitic, the Bantu and the Dravidian. Similarly it is possible to arrive at several other groups, *e.g.*, the Mongolian group, the Finnish group, the South American group.

Now the aim and object of Comparative Philology of a particular group of languages is to find out and explain the similarities that these languages show with one another.

The scope of the science of language is, therefore, as wide as the whole of humanity, as it deals with human speech itself. It has to do with the facts of a speech not only of a particular time ; it has not only to collect, arrange, tabulate and regularise them ; this latter is the province of descriptive grammar. The latter is, so to speak, the logic or philosophy of a language. It deals more with abstractions than with facts. But Comparative Philology has to do with facts of language in the past, as well as at present, to give its history by comparing those facts at various periods in its life. In fact it has to deal with the various phenomena of speech—the production of sounds, their combinations into syllables, the grouping of these into words, and finally putting them into sentences. It also includes larger questions like that of the origin of language, the cause of its growth and change and the like. "Its problem therefore is a dynamic problem ; it has not only to recognise and point out that there is a constant change in language but also to try to find out the cause of that change. "Our science therefore is both historical and comparative, or rather, it is comparative because it is historical." The comparison of languages like the Sanskrit, Latin, Greek, is only the extension of the historical investigation

of a single language through its different stages; just as when we trace the development of the Māhārāṣṭrī Prākrit through old pre-Jñāneśvara Marāṭhī into our modern Marāṭhī: for no language can be treated as if it were fixed and unchangeable but rather as a growth, whose different phases should be outlined in a connected series of successive periods. The very attempt of certain philologists to reconstruct a parent language is due to this historical treatment.

Our science strives, to quote WHITNEY,[1] "To comprehend language, both in its unity, as a means of human expression and as distinguished from brute communication, and in its internal variety of material and structure. It seeks to discover the cause of the resemblances and differences of languages, and to effect a classification of them, by tracing out the lines of resemblance and drawing the limits of difference."

3. WHAT IS LANGUAGE?—But what precisely do we mean by language, when we speak of a science of language? If we mean, that it is the means of expressing in an intelligent manner our thoughts to others, then we give it a wider signification than is intended by linguists generally. For, our thoughts could be well conveyed to others by gestures and grimaces, or pictorial or written signs, or lastly, by articulate sounds. The first is used by mutes and even by others when they meet with persons speaking a language unintelligible to them. The second is most helpful, yet subordinate to the third. The last is the legitimate and the most important means of expressing thought. While in gesture-language, the movements of face and the like are themselves symbols of thought, in spoken language, the results of such movements become symbols. Language[2] in its widest

1. *Life and Growth of Language*, p. 4.
2. PORZEZINSKI-BOEHME, *Einleitung in die Sprachwissenschaft*, p. 1.

sense means, therefore, the sum-total of such signs of our thoughts and feelings as are capable of external perception and as could be produced and repeated at will.

4. PHYSICAL AND PSYCHICAL ASPECTS OF SPEECH :—The conception of language therefore is based, on the one hand, upon articulate sounds and on the other, upon our thoughts and feelings. Thus our speech has a physical and a psychical aspect. It would not do to regard language merely as a physical movement of speech-organs; but it should be remembered in addition, that it is at the same time a psychical activity. For, when we utter the word *mango* or *red*, it is not the mere act of the organs of speech. We have not merely produced certain sounds, but a certain psychical process has preceded our utterance of the word *mango*. A vast process of arranging and definitely denoting the thought-material or of breaking up a complex thought-material into its elements and definitely symbolising it, has preceded it. By the word *mango* a variety of visual[1], tactile and other sensations are united and made into a unit, while by the word *red* an element of the compound sensation produced by a certain object of a particular colour, size and shape, is analysed and singled out by being attached to the word-symbol *red*. This arranging and denoting of thought-material must be accompanied by articulate sound in order to produce the desired effect. We thus see how the physical and psychical elements go hand in hand in speech.

It is the thought-material and not the articulate sound that gives a language its special character.

Thus, the recognition of this fact,—the importance of the psychical element in speech, led philologists to turn their attention to the psychology of speech. What led to this effect more chiefly is, according to OERTEL, the following[2] :—

1. OERTEL, *Lectures on the Study of Language*, p. 65.
2. OERTEL, *op. cit.* p. 68.

The employment of *analogy* as a methodological principle and the first beginnings of what we now term *Semantics*. We shall deal with both of these subjects later.

Not all the psychical processes which form an important factor in speech, could be observed and detected. Many of them take place without any clear consciousness on the part of the speaker, and whatever has passed through one's consciousness remains as a potent factor in a subconscious state. All expressions of speech-activity flow from this subconscious state in the soul. It should be noted, however, that some eminent psychologists deny that there is anything in the soul that is beyond consciousness.

a. OUTER SPEECH :—Before proceeding to consider how language comes into being and develops, we shall first of all see how speech-sound is produced. We are able to produce sound when we have taken breath into our lungs. Articulate sound is nothing else than the working up, by means of the speech-organs, of the air pressed out from the lungs. When the breath passes through the lung into the larynx (Adam's Apple as it is popularly called), the vocal chords placed in it begin to vibrate. We can feel them when we put our hand on the apple while speaking. These vibrations are communicated to the passing stream of breath. As the breath passes through the upper part of the throat, it can take two ways, *viz.*, through the nose—which is its natural course when the mouth is shut (for instance when we say *m* by the shut mouth), and through the mouth. To make the former possible, the soft palate with the uvula must hang down straight. When they are pressed towards the back of the throat, the breath passes into the cavity of the mouth. This breath, which has now become sound, is not yet distinctly articulate. When it passes through the mouth, it can meet with obstructions at several places from the tongue, *viz.*, at the roof of the mouth (or soft palate), at the hard palate, at

the hard gums of the upper teeth and lastly at the lips; and by different parts of the tongue, *viz.*, its back, middle and tip; *e. g.*, when we produce the sounds *k*, *c*, and *t*, in slow succession, we feel the gradual change of the place of obstruction by the tongue. When the breath tries to escape obstructions and explodes, we have the several consonants. In the production of vowels the tongue does not actually obstruct the breath, but only helps in widening or narrowing its passage, upon which the quality of the vowels depends. The vowels and the consonants together make up the sound-material of language.[1]

All the vowels and all the consonants with their different classes, combine into syllables and these latter into words.

b. STRESS OR ACCENT:—But all the syllables of a word are not of the same value. Usually some one of them is brought into prominence. This could be effected in different ways: by uttering the syllable in a particular tone or with greater stress. In the north of Germany for example, both these coincide; *e. g. vater*—the first syllable carries not only the stress but the pitch. This special treatment of a syllable is called accent. The latter or pitch accent is also called musical accent. Sanskrit and most of the Indo-Germanic languages had originally a musical tone; *e. g.* ऋजिश्वन्, गायत्रम्, ईन्द्रः, इन्द्राग्नी, (*Ŗjíśván, Gāyatrám, Índraḥ, Indrāgnī́*) where accent is musical; Marāṭhī काम (*kāma*), देऊळ (*deūḷa*), Gujarātī वारणुं (*bāraṇũ*) etc.; but it is neglected as it has ceased to play any part in these languages. The two accents

1. See MERINGER'S excellent description of the physical process of speech, in the *Indogermanische Sprachwissenschaft* pp. 13–21.

Linguistics takes the aid of Physics to count the number of vibrations produced by each sound. The sounds differ in wave-lengths from individual to individual. We can classify sounds into families or *phonemes* and assign *diaphones* to particular groups of men using the same language. (for further particulars see Glossary). Ed.

however need not necessarily be borne by one and the same syllable. When, for instance, we ask a question तूं कामाला गेला होतास ? (*tũ kāmālā gelā hotāsa ?*) the stress is on का (*kā*) but मा (*mā*) is pronounced with a higher pitch. One thing is to be borne in mind in this connection, that, sometimes a syllable might begin by a lower pitch and finish in a higher pitch and *vice-versa*. This gives what is called in Sanskrit the स्वरित (*Svarita*) and in English the circumflex; ब्रह्मणस्पतिः (*brāhmaṇaspátiḥ*), इन्द्रशत्रुः (*índraśatruḥ*) etc.

6. INNER SPEECH:—We now turn to the psychical part—the thought or inner speech ; for actual spoken words are but the clothing of our thoughts.

We learn our speech in childhood ; it is a process of slow acquisition ; but while learning we do not accept the ready-made words of our elders. We hear them repeat some words often and often. We try to catch their precise sound ; we also try to mark the position of the organs of speech and thus imitate it as closely as possible. Thus when a child hears the word *bell*, first of all there is the acoustic sensation ; at the same time it tries to see the movement of the speech-organs and imitates them ; here is a motory impression produced on his brain. Our speech is therefore composed of acoustic and motory images of a spoken word. In other words, inner speech depends upon memory images of the words and sentences heard and spoken by ourselves. These memory images (*Erinnerungs-bilder*) are called speech or sound-ideas (*Lautvorstellungen*).

When a child trying to imitate the word काका (*kākā*) actually says टाटा (*ṭāṭā*), or calls a *cat tat*, it has no idea that it has mispronounced the word. It has tried to pronounce it as faithfully as possible. As it grows up, as the use of the organs of speech becomes freer, it slowly assimilates its pronunciation of the word to the standard.

Nor does a child try to imitate only; but while imitating, it creates new forms and words on the analogy of those it has heard. Thus because it has repeatedly heard forms like धरलें (*dharalē*) and भरलें (*bharalē*), it forms others like करलें (*karalē*) and मरलें (*maralē*). It invents the new past tense in place of the more correct केलें (*kelē*) etc. Thus, then, the speech of an individual is traditional and yet peculiarly his own. Paradoxical as it may seem, it is this fact which serves as a conservative element and is at the same time one of the factors contributing to a change in language.

As language is a means of communication, every individual tries to avoid innovation as far as possible and therefore resents it at the hands of others; and yet is the system of associations of sensations (visual, acoustic, olfactory, tactile etc.), and movements peculiar to every individual. But the relieving feature of it is that similar associations have a firmer hold on all the members of a group of individuals, than any social institution. So that although in one sense language depends upon an individual, the individual on his part is a creature of the language, which as a child he has to acquire.

6. LANGUAGE AN ACQUISITION :—Language therefore is more or less traditional and social. It should not be supposed, as is sometimes done, that it is inherited as a race characteristic.[1] A child can acquire any other language in much the same way as it does its mother-tongue. Imagine, for instance, a child of Gujarātī parents kept with a Marāṭhā nurse. Sure enough the child acquires the language of the nurse. If the father speaks one language, say Marāṭhī, and the mother another, say Kanarese—the child will learn both languages and show the same mastery over both. Children of missionaries in India easily pick up the language of their Ayyah.

1. WHITNEY, *Life and Growth of Language*, pp. 8 ff.

History has some very interesting examples that go against the theory that language is a race characteristic and is inherited like other characteristics. The French people are the descendants of the Celts of the Roman days. But what language are they speaking now ? Not their own, the Celtic, which has long since disappeared from France before the more cultured speech of the Roman conquerors; they speak a language—the French, which originally was a dialect of the Latin language and hence is included among the 'Romance' Languages of Europe. Another example is the language of the Indian Parsees. They speak a language, which, though remotely and indirectly related to their old speech, is really as foreign to them as any other Indian dialect. The Bhils of Central India and Satpura too speak the Bhili language, which is very akin to the Khāndeśī, although they belong to the aborigines of India, and as such must have spoken a dialect of the Muṇḍā group.

The other theory that language is independently produced by each individual, meets with no better fate. What we have said above is a sufficient argument against it. A language is acquired by each individual, but not produced. In the latter case, he would have to spend his whole life-time in finding out things, which have already long ago been found out for him by others; and there would be absolutely no progress. His task again would be made more arduous, as, whatever he produces would be unintelligible to others and would not be accepted by them.

7. ORIGIN OF LANGUAGE:—It may be allowed to pause a little and consider the question of the origin of language. Now with us it is an achievement, an acquisition. We have acquired it from the previous generation through communication. But how was it originally acquired by man? The theories that it is a gift of God or that it is the result of a

deliberate convention arrived at by the members of the most primitive community, may be brushed aside at once. No linguist believes in them to-day.

Here the theory of evolution is our chief help. We know that the civilised man of to-day, has developed from a very primitive mammal, that could only utter a sound like an animal. In fact our complete vocal organs are the result of a very slow natural growth. We can therefore imagine a time when man, like the lower animals, could only cry. This cry went a good way in indicating feelings of joy or pain ; it was of course also a call. In this connection we must quote at some length the interesting remarks of LEFEVRE,[1] the Paris anthropologist : "When experience and induction, by their mutual aid, had at length succeeded in tracing the genealogical tree of mankind, a fortunate discovery was made in anthropology. In embryology the student found an abridgment, a summary of the transformation discovered or assumed from age to age. By the aid of the microscope, fœtal life reveals to the eye all the phases in the development of the cell, of the egg, of the very simple material aggregate which is destined to be clothed with the dignity of humanity—that is to say to realise within a few months the work of a thousand centuries. Now it seems that language also has in some sort its embryology. Not that we can ever be the spectators of the formation of the language ; but we possess the germ nevertheless, the undoubted embryology of speech—the cry—which in most of the higher animals, even in man himself, exists as an independent utterance, and suffices for the expression of certain sentiments and even of a few ideas, and is consequently the first element of the crudest forms of speech." And further, "Repetition, continuance, the raising and lowering of the tone, mark the earliest efforts to attain to the expression of more varied and more distinctly realised sensation. Modula-

1. *Race and Language*, pp. 22 ff.

tions, more or less uncertain, more or less fixed by practice, as consciousness dawns, come to increase the vocal resources. A given vocabulary will include five, six, or even ten variations of the specific cry, each one doubled by a stronger or weaker form, and susceptible of expressive combinations, comparable to our derivatives and compound words; the language thus reflects, so to speak, the shades of joy and pain, fear or desire, sickness or health, hunger or thirst, changes of temperature, the approach of day, or night." "The summoning[1] cry, so largely used by animals, has been developed and defined into command, into indication of distance, number, person, sex, etc. With regard to the emotional character, it is perhaps in spite of its reflex and involuntary character, a yet more important factor. Being associated with all the movements called forth by these, it affirms a state, the passing of one state to another and subsequently, an action and the result of an action."

The next step, yet in the pre-historic stage, in the development of language, is the imitation of natural objects, both animate and inanimate. This theory of onomatopœia has been maintained by renowned linguists like WHITNEY, PAUL and others. Although in the present highly developed state of language, there are very few, almost no, traces of this, there is no doubt that this formed an important factor in the earliest stages of human speech. For, granting that mutual communication and understanding is the sole aim of language, what would be more natural and easier to the most primitive man than to denote various animals and objects in nature by imitating their distinctive cries? To quote WHITNEY[2], "If we thus accept the impulse to communicate as the governing principle of speech-development, and the voice as the agent whose action we have especially to trace, it will not be diffi-

1. *Race and Language*, p. 28.
2. *Op. cit*, pp. 294–5.

cult to establish other points in the earliest history. Whatever offered itself as the most feasible means of arriving at mutual understanding would be soonest turned to account. We have regarded the reproduction, with intent to signify something, of the natural tones and cries, as the positively earliest speech; but this would so immediately and certainly come to be combined with imitative or onomatopoetic utterances, that the distinction in time between the two is rather theoretical than actual. Indeed, the reproduction itself is in a certain way onomatopoetic; it imitates, so to speak, the cries of the human animal, in order to intimate secondarily what those cries in their primary use signified directly. Just as soon at any rate, as an inkling of the value of communication was gained, and the process began to be performed a little more consciously, the range of imitation would be extended. This is a direct corollary to the principles laid down above. Mutual intelligence being aimed at, and audible utterance the means employed, audible sounds will be the matter more readily represented and conveyed; just as something else would come easiest to one who used a different means. To repeat once more the old and well-worn, but telling illustration: if we had the conception of a dog to signify, and the instrumentality were pictorial, we should draw the outline figure of a dog; if the means were gesture, we should imitate some characteristic visible act of the animal for example, its bite or wagging of its tail; if it were voice we should say "bow-wow." This is the simplest explanation of the importance which is and must be attributed to the onomatopoetic principle in the early stages of language-making."

From the cry and onomatopœia, with their various combinations, by means of association and metaphor, we arrive at a vocabulary, sufficient for the purposes of primitive man. For a primitive hunter, and man was only such at the

beginning, the stock of words need not have been very large. But as the hunter further developed into the herdsman leading a nomadic life, the original stock of words would not suffice. Here is then work for convention based upon mutual understanding. Certain words to represent new objects and ideas were used by certain individuals and upon their being accepted by the tribe or community, became by repetition quite current coin. It must be remembered, however, that the basis for this is always the small original stock, which is thus improved upon and added to by manipulations of various kinds, based upon association of various kinds and metaphor.

8. LANGUAGE IS NOT AN ORGANIC GROWTH:—After all this, very few words are needed to refute the theory, that language, like plants and animals, is an organic growth. We have seen above, that it is the result of the psycho-physical and physiological dispositions of man and more or less a social institution. It is interesting, however, to note that the theory owes its origin to certain resemblances between the growth of a language and organic life. In the latter we find the gradation of individuals, the species, the genus, although of course class, species, and genus are more or less subjective and have no real existence. In the same way there is the speech of the individual, the dialect to which it belongs, and the general language of which the several dialects are local variations and so on. There is another analogy. The development, say of an individual animal, depends upon two factors: its parents and its surroundings. The same with language. It depends upon the community[1] in which the individual lives and secondly, upon the peculiarities and movements of mental and physical nature of the individual. It has like the organism or species a birth, development, decay and the like. But here the parallel does and ought to end.

1. PAUL, *Prinzipien der Sprachgeschichte*, pp. 37-8

Because language after all has no separate existence apart from the psycho-physical dispositions of an individual.

9. CONSTANT CHANGE IN LANGUAGE :—It may sound a bit astounding, but it is no less true, that every language is, at any moment in its life, in a state of change; and within one homogeneous looking language, there are as many variations[1] as there are individuals speaking it. For, we have seen that speech depends upon certain psycho-physical processes. Now these latter are bound to differ, howsoever imperceptibly, with different individuals. We have also seen that language is an achievement. In the very process of this acquisition, certain linguistic factors are dropped out of consideration, as certain other new ones are added; because a successful achievement depends as much upon the capacity of an individual (both in point of hearing and the basis of articulation), as upon the circumstances in which he is placed. "The inner speech organism or the groups of speech-ideas are constantly changing in every individual." The three causes enumerated by PAUL[2] should be noted. First, every impetus that is not, in consciousness, supported by the renewal of the impression or by itself being repeated, becomes weaker and weaker. Secondly, every activity of speaking, hearing, or thinking adds something new to the speech-material. Even in faithful reproduction of an original activity, at least some of the moments of an existing speech-organism are strengthened. And thirdly, as well by the strengthening of old speech elements as by the addition of new ones, the conditions of the associations inside the speech organism are always shifted.

There would, therefore, be as many dialects of our Marāṭhī or Gujarātī language, as there are individuals speaking it. Only they have not yet assumed the dignity of dialect because there is the unifying factor of mutual understanding.

1. *Op. cit* p. 27.
2. *Prinzipien der Sprachgeschichte*, p. 27.

10. DIALECTS :—We may therefore define dialect as the speech of a group of individuals, who can make themselves easily and perfectly intelligible to one another ; or to put it in other and more accurate words, dialect[1] is constituted by the speech of all those persons, in whose utterances 'variations are not sensibly perceived or attended to.'

Besides individual differences, which are not yet called dialects, there are differences between persons forming different religious, social, political or economic groups. These are more conspicuous than individual differences. We perceive them and call them dialectal. Thus the ordinary everyday speech of a Brahmin differs in certain points from that of a high class Marāṭhā ; and that of the latter from the speech of a coolie. Although these classes make themselves mutually intelligible, yet within themselves they show peculiarities in grammar, vocabulary, and even in intonation, which are at once noticed. Thus for instance the बेस्तवार (*bestavāra*) of workmen is the same as ब्रष्पतवार (*braṣpatavāra*) of Brahmin women, and the बृहस्पतिवार (*bṛhaspativāra*) of Brâhmins. The word is originally the same ; but how it has changed its form ! In Kolhapur district, we often hear an expression, to us very strange, तो तुम्हांला कोण पाहिजे, तो आम्हांला पाहुणा पाहिजे (*to tumhālā koṇa pāhije, to āmhālā pāhuṇā pāhije*) ; queerly enough सोयरा (*soyarā*) has acquired a bad meaning in that district. In the Ahmednagar district, they say ओढें निघालें (*oḍhē nighālē*) at which a Poona gentleman laughs because he knows only उट्टें निघालें (*uṭṭē nighālē*). The रट्टा धरला (*raṭṭā dharalā*) of Marāṭhās in the districts close upon the Karnatic, is equally ridiculous in his eyes. Thus again the word *carriage* means in Poona Marāṭhī खटारा (*khaṭārā*) and in Berar Marāṭhī खाचर (*khācara*). To take other examples from the dialects of Marāṭhī: the Deccan Marāṭhī होता (*hotā*) is represented by Koṅkaṇī Marāṭhī अशिल्लों (*aśillō*) etc. The latter four examples are

1. See also MEILLET-PRINZ, *Vergleichende, Grammatik*, p. 23.

specially chosen as not being class variations ; but they are the differences of district. Every district of Mahārāṣṭra shows such peculiarities and we call them dialectal variations.

Then there are variations due to differences in education and general culture. The speech of a highly educated man of today would naturally differ from that of a quiet country-gentleman. The latter might not understand words like शिक्षणक्रम, सनदशीर, निसर्गसिद्ध हक्क, प्रातिनिधिक, संसारसुधारा परिषद्, केळवणी, तत्त्ववाद (*śikṣaṇakrama, sanadaśīra, nisargasiddha hakka, prātinidhika, saṁsāra-sudhārā pariṣad, keḷavaṇī, tattvavāda*) and the like. On the contrary an educated gentleman might fail to understand words like वाहातुक, खोती, राब, वेणें (*vāhātuka, khotī, rāba, teṇē*) and the like. Some of the words and phrases of the uncultured people are, more often than not, mispronunciations, mistakes of grammar and syntax, *e. g.* वखळ, हायती, ईतभर, ऊच, वराल्डा, पल्डा (*bakhaḷa, hāyatī, ītabhara, ūca varāḷḍā, paḷḍā*).

When we say these are dialectal differences, we do not mean they are something less than language. They do not differ in kind but only in degree. The individuals speaking two different dialects, might find it hard to understand one another as readily as they would understand those who spoke in their own dialect. But they may in general matters speak in such a way as easily to understand one another. Because, despite these petty dialectal variations their language is one. For, in the words of WHITNEY[1] " the possibility of communication makes the unity of a language."

The dialectal or semi-dialectal differences within the limits of the same language and the same community tend to become greatest when the differences between classes and sections are greatest. Mutual understanding is the force that is both restrictive and communicative, because it is by its means that an innovation in a speech is communicated to others and

1. *Life and Growth of Language*, p. 157.

possibly accepted by them. Whatever, therefore, tends to increase communication, like education, newspaper, trade, travel, railway etc., also tends to make for unity in speech. A common history, national feeling, national poetry, written literature are also among causes that may be called conservative. On the other hand, whatever slows down communication tends to accentuate and for the matter of that, perpetuate differences. Thus although in a barbarous community, the possibility of innovations is very small, when that community breaks up, say by quarrel or migration and is separated by a river, a dale, or a mountain without any possibility of further intercourse, the difference will be so accentuated, that in course of time, there will be developed two entirely different forms of speech. How want of communication isolates a dialect is best exemplified in our Berārī and Koṅkaṇī dialects. The speakers of these separated somehow from the main body of Marāṭhās and were so surrounded by peoples speaking foreign languages and were also for a time so isolated, that they have yet preserved a form of Marāṭhī that is as old as the 13th century, if not earlier. The influences that tended towards change in Mahārāṣṭra proper were absent in these cases. The Brahui, a Dravidian language, in the midst of Iranian languages like the Pashto and Baloch, is a good example of isolation.

However strong the variations, there are several things that bind dialects together. A largely common vocabulary, a system of inflection and conjugation that easily discover commonness of source, a distinctly related phonology, easily disclose the relationship of dialects. MEILLET[1] has very succinctly expressed this view of dialects in the following words. " One and the same language shows, in every section of the community in which it is spoken, certain peculiarities in pronunciation, in grammar and in vocabulary. These

1. *Einführung in die Vergleichende Grammatik* Pp. 22–3.

peculiarities are handed down from generation to generation and every generation seeks to increase them. The totality of such changes in the same tongue we call dialects, which, without being identical, have certain common peculiarities and a general resemblance which is so recognised by the speakers." Some of the most instructive examples of dialectal growth are shown by the Romance languages on the one, and the Germanic languages on the other hand in Europe ; and the Aryan branch of the Indian dialects in Asia. *Frater*, the Latin word for brother, is seen in the French as *frère*, *confrère*, in the Italian *fra* with change of meaning as in certain proper names, *e. g. Fra Bartholomeo*, Spanish *Fray*, also with change of meaning (seen in English *friar*), so that in Italian a new word *fratello*, the diminutive, had to be used for brother and in Spanish a word of quite a different sort had to be substituted for it, *e. g. hermano* from Lat. *germanus* (seen in the English word *german*). In the Germanic group we find the same differences, which however point to unity, Dutch *broeder*, German *bruder*, Icelandic *brothir*, Swedish *broder*, English *brother*, Danish *bror*. Another example is the word for wife in the Germanic languages ; English *wife*, German *weib*, with change of meaning, and *vif* are the dialectal variations of the same primitive Germanic word.

EXAMPLES FROM INDIAN DIALECTS : Coming to the Marāṭhī, we find the interesting dialectal variations in the word for *my ;* मोजें (*mojē*) Koṅkaṇī, मागेलें (*māgelē*) Kārwārī, माझो (*majho*) Ratnāgirī, माझा (*mājhā*) Poona, माहा (*māhā*) Berārī ; all of which we can trace to the मज्झ (*majjha*) of Māhārāṣṭrī Prākrit. In मागेलें (*māgelē*) we trace the influence of the Kanarese, on whose borderland, we know, this Marāṭhī dialect is spoken. *Brother* is in Koṅkaṇī भाव (*bhāva*), Kārwārī भावु (*bhāvu*), Ratnāgirī भाऊस (*bhāusa*), Poona भाऊ (*bhāū*), which could be traced to Jain[1]

1. PISCHEL, *Grammatik der Prakrit Sprachen*, p. 112.

Māhārāṣṭrī भाउ (*bhāu*), in भाउज्जा (*bhāujjā*) for Sanskrit भ्रातृजाया (*bhrātṛjāyā*). The most instructive words in this matter are the numerals, the pronouns and words of immediate relationship. If in the case of other resemblances, the possibility of mixture of dialects, of borrowing, make the solution of the problem difficult to a linguist, these words at any rate are such that even in the case of the most primitive people, no one will possibly think of a borrowing. A comparison of these is very interesting; word for *two* is in Marāṭhī दोन (*dona*), in Hindī दो (*do*), in Gujarātī बे (*be*), where the second consonant in Sanskrit द्वौ (*dvau*) is retained; word for *eleven* is in Marāṭhī अकरा (*akarā*), Gujarātī अग्यार (*agyāra*), or एग्यारह (*egyāraha*), Hindī ग्यारा (*gyārā*). We can at once see that these are variations of the common Sanskrit द्वौ (*dvau*), द्वा (*dvā*) and एकादश (*ekādaśa*). The word for *we* is in Marāṭhī आह्मी (*āhmī*), Gujārātī अमे (*ame*), Hindi हमे (*hame*), Bengāli अमि (*ami*). These have that part common, which is seen in the base of the Sk. acc. अस्मान् (*asmān*). Word for *sister* is in Marāṭhī बहीण (*bahīṇa*), Hindī बहन (*bahana*), Gujarātī बहेन (*bahena, be'n*) from the common Sanskrit भगिनी (*bhaginī*).

11. DIALECTS POINT TO A COMMON MOTHER LANGUAGE.—These correspondences in the variety of dialects clearly point to an original unity. In the case of the older languages like the Latin, Greek, Sanskrit, we can only point out the correspondences, but cannot with any surety lay our finger on any known form, which we could call their common source. But the observed facts in the modern dialects justify our applying the principles won from an observation of them, to the older languages. We can therefore say, with as much surety as when we were dealing with modern dialects, that the older languages, which show in their variety such striking resemblances, are really dialects of an original speech, which is called the Indo-Germanic or Indo-European mother language.

How can we explain the diversity in the reproduction of a sound in the original language? Why is it that an original *bh* is represented by *b* in English and German, *bh* in Sanskrit and *ph* in Greek and Latin? One of the causes may be, that the races that separated, gradually changed their basis of articulation as they changed their homes and surroundings. But it is also likely that the original sound was itself so uncertain, that different peoples reproduced it in different ways. If you all of a sudden find yourself among strange people, you find it difficult to reproduce certain of their vocables. If you are in a tram-car in Munich, it is ten to one, that you will not understand whether the conductor says *Parer Strasse* or *Barer Strasse*; or in Leipzic, you cannot make out whether your best Professor of languages says *Kössel* or *Gössel* (a proper name). This fact is perhaps better illustrative either (1) of the uncertainty of the pronunciation itself or (2) the uncertainty of the acoustic effect produced by it.

12. PRACTICAL ILLUSTRATION OF LINGUISTIC CHANGE.—If we follow the course of the life of any language, we clearly see, what has been already indicated above, that *no language is ever in a static condition; that it always changes and grows.*[1] Taking for example that language of the Indo-German family, which is more closely related to Sanskrit than any other of that group, *viz.*, the Avesta, we find that it has always and gradually undergone a change. The language of the inscriptions of Darius, the language of the sacred books of the Parsis called Avesta, the later language of the commentaries called Pahlavi, the old Persian of poets like Firdausi, are the most obviously notable changes in the life of the language of the Persians. Coming nearer home, we find that the Vedic Sanskrit is already a more ancient and archaic idiom than the

1. It is always in a state of flux. Just as, in Mathematics, line is the flux of a point, so language is the flux of the mind. Ed.

anguage of the theological books, that this latter differs from the epic Sanskrit, and between that and the classical Sanskrit there are differences that are equally obvious.

Our own Marāṭhī shows behind it a development of at least one thousand years, if not more. The earliest authentic literature in Marāṭhī belongs to the thirteenth century A. D., if not earlier. As a spoken dialect it must have existed some centuries before that at least. Now when we compare the Marāṭhī of Jñāneśvara with the Marāṭhī of to-day, we find that an astounding change has come over it. Even if we compare that old Marāṭhī to the Marāṭhī of two to three centuries later, Ekanātha's Marāṭhī, we are struck with a great difference not only in the vocabulary but also in the grammar of both.

As a concrete example, we take the following passage from the 15th Chapter of *Jñāneśvarī*, vs. 47 ff.

तो हा जगडम्बरु । नव्हे येथ संवसारु । हा जाणें महातरु । थावला असे ॥ परी येरां रुखां सारिखा । तळीं मुळें वरी शाखा । तैसा नव्हे म्हणौनि लेखा । नये कव्हणा ॥ आगी कां कुऱ्हाडी । होए रिगावा जरी बुडीं । तरी होकां भले तेव्हडी । वरचील वाढी ॥ जे खुटलेयां मुळांपासीं । उलंडैल कीं शाखांसी । परी तैसी गोठी कायसी । हा सोहपा नव्हे ॥ अर्जुना हें कवतिक । सांगतां असे अलौकिक । जें वाढी अधोमुख । रुखा या ॥ आणि आथि नाथि तितुकें । रुंधलें असें एणेंचि एकें ॥ कां रवीचां अस्तमानीं । अंधारेन कोंदे रजनी ॥

(*To hā jagaḍambaru । Navhe yetha saṁvasāru । hā jāṇaī mahātaru thāvalā ase ॥ parī yerā rukhā sārikhā । talī muḷē varī śākhā । taisā navhe mhaṇauni lekhā । naye kavhaṇā ॥ āgī kā kurhāḍī । hoe rigāvā jarī buḍī । Tarī hokā bhale tevhaḍī । varacīla vāḍhī ॥ je khuṭaleyā muḷā-pāsī । ulaṇḍaila kī śākhāsī । parī taisī goṭhī kāyasī । hā sohapā navhe ॥ Arjunā hē kavatika । sāṅgatā ase alau-kika । jē vāḍhī adhomukha । rukhā yā ॥ āṇi āthi nāthi titukē । rundhalē asē eṇēci ekē ॥ kā ravīcā astamānī । andhārena konde rajanī ॥*)

We pick up from this passage some forms, and examine them : संवसारु, जाणैं, थावला, येरां, रुखां, म्हणौनि, भले तेव्हडी, उलंडैल, आथि रवीचां, अंधारेन. (*saṁvasāru, jāṇaī thāvalā, yerā̃, rukhā̃ mhaṇauni, bhale tevhaḍī, ulaṇḍaila āthi, ravīcā̃, andhārena.*)

a. संवसारु (*saṁvasāru*). What strikes us in this word is the termination of the nom. sing. It is उ (*u*), which is the remnant of स् (*s*), which in Sanskrit before soft consonants becomes ओ (*o*); this latter form is generalized by the Prākrits, where the nom. sing. of masc. in अ (*a*) is ओ (*o*). *e. g.* गोदमो (*Godamo*), बुद्धो (*Buddho*). Māgadhī however has changed it to ए (*e*). The Māhārāṣṭrī has shortened it to उ (*u*) as in पुत्तु (*puttu*) or पूतु (*pūtu*). Our modern Marāṭhī has lost the उ (*u*) and has simply the अ (*a*) ending. We can Mark the stages thus: Sanskrit संसारः (*saṁsāraḥ*), Prākrit संसारो (*saṁsāro*), old Marāthī संवसारु (*saṁvasāru*) and modern Marāṭhī संवसार (*saṁvasāra*) or संसार (*saṁsāra*). This is a change that has affected the formantic element स् (*s*). Then there is a phonetic change observable in the body of the word itself, the stem as it is called. The Sanskrit संसार (*saṁsāra*) has व (*va*) developed between the nasal and the स (*sa*). This is introduced for facility of pronunciation, as a transitional sound between the nasal and the following sibilant. Perhaps the transitional stage is सौंसार (*saũsāra*), *e. g.* सौंगडी (*saũgaḍī*), modern संवगडी (*saṁvagaḍī*); also Ap. भंवर (*bhaṁvara*), भमर (*bhamara*) for भ्रमर (*bhramara*). The present संसार (*saṁsāra*) is not a development of the old संवसार (*saṁvasāra*). It is borrowed from Sanskrit directly. Of this process of borrowing from the old stock and its effects, we have to speak later on.

The Gujarātī has generalised the ओ (*o*) ending of the nom. of masc. in अ (*a*); *e. g.* घोडो (*ghoḍo*).

b. जाणैं (*jāṇaī*) is more interesting still. First of all the formantic element or termination appears to be ईं (*ī̃*) or ऐं

(*aī*). This is for the 2nd pers. sing. of the Imp. which becomes in later Marāṭhī जाण (*jāṇa*). The genesis of this termination is not clear. The possible forms,[1] say of a root वृत् (*vṛt*), in the 2nd. pers. sing. Imp. are in Prākrit वट्ट (*vaṭṭa*), वट्टसु (*vaṭṭasu*), वट्टेसु (*vaṭṭesu*), वट्टेहि (*vaṭṭehi*), Amg. वट्टाहि (*vaṭṭāhi*), Ap. वट्टु (*vaṭṭu*), वट्टहि (*vaṭṭahi*). जाण (*jāṇa*), the representative of Sanskrit ज्ञा (*jñā*), could not have so many forms; जाणाहि (*jāṇāhi*), probably also जाणेहि (*jāṇehi*), which through जाणे-इँ *jāṇe-ī*) would give जाणैं (*jāṇaī*). With सु (*su*) it is not found used. With the dropping of the हि (*hi*), we arrive at the form, the अनुनासिक (*anunāsika*) compensating for the loss of aspirate. So far for the form, which has changed. Then the change in the body of the word. The original conjunct is already in the Prākrit dissolved and the component parts are made into separate syllables. So that the monosyllabic tends to become dissyllabic. Or rather, the conjugational sign as seen in Sk. जानाति (*jānāti*) is retained, and the termination applied. In Prākrit we have कुणइ (*kuṇai*) from कृ (*kṛ*), which goes back upon the old 5th conjugational form of the root seen in Vedic कृणोति (*kṛṇoti*).

c. थावला (*thāvalā*) is the 3rd pers. sing. of the past tense. थाव (*thāva*) is from Sanskrit causal base स्थाप् (*sthāp*) of स्था (*sthā*). The dialect does not allow a sibilant in the beginning of a conjunct and drops it. Other examples are फुड (*phuḍa*) for Sanskrit स्फुट (*sphuṭa*), थेर (*thera*) through थविर (*thavira*) from Sanskrit स्थविर (*sthavira*). In the representation of the Sanskrit स्थ (*stha*), however, there is a hesitation in the Prākrits.[2] Sometimes we get ठाव (*ṭhāva*), but also थाव (*thāva*). The ज्ञानेश्वरी (*Jñāneśvarī*) has थाउ (*thāu*) also. The non-initial प (*pa*) has become व (*va*), as in पाप-पाव (*pāpa-pāva*), रूप रूव, आतप-आअव, कोप-कोव, दीप-दीव (*rūpa-rūva, ātapa-āava, kopa-kova, dīpa-dīva*). Then the past tense is not

1. PISCHEL, *Grammatik der Prakrit Sprachen* p. 331.
2. PISCHEL, *Grammatik der Prakrit Sprachen*, p. 212.

made up, as in Sanskrit, by adding an augment and joining the terminations of that tense. Here we have a suffix which makes the root a participle, as most Pr. tense-suffixes do. According to one theory, this has probably come from the त् (*t*) of the Sanskrit past. pass. part. through द्, ड् (*d*) (*ḍ*) in some Prākrits, by the phonetic law obtaining among the Indian languages, that ड् (*ḍ*) and ल् (*l*) are similar sounds. "In the Prākrits[1] the past tense is indicated by the present (historical) or in an indirect way by the past pass. part., in which case the agent of transitive verbs is used in the instr. case." The Sanskrit त् (*t*) becomes द्-सुदम् (*d-sudam*), अनुचिट्ठिदम् (*anucitṭhidam*) in Śaur. Pr. In certain dialects it also becomes ड् (*ḍ*) but only under certain circumstances; कड (*kaḍa*) for कृत (*kṛta*) J M. Amg. etc. cf. मड[2] (*maḍa*) for मृत (*mṛta*), हड (*haḍa*) for हृत (*hṛta*). It is through this latter that the ल (*la*) becomes generalised[3] as the participial termination for the past tense.

HOERNLE[4] regards the form as past participial suffix in अल, इल. (*al*), (*il*).

The other and most likely theory is that this form of the participial tense was evolved independently of Sanskrit. It is seen, besides in the Marāṭhī, also in Oriyā, Bengālī, Bihārī and even in the Āssāmese, languages, which according to GRIERSON[5] belong to the Outer Circle; *e.g.*, Mar. उठिला (*uṭhilā*)

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1. PISCHEL *Op. cit.* p. 361; BHANDARKAR, *Philological Lectures* p. 219; RAJAWADE in his *Jñāneśwari-Grammar* Pp. 80, 81, tries to derive the forms of the present used for the past from Sanskrit लङ् (*laṅ*) or imperfect; असें, असे (*ase, ase*) from आसम्, आसीत्, असस, (*āsam*) (*āsīt*), (*asasa*) from आसीः (*āsīḥ*). Says he "the Augment which roots take in Sanskrit when लङ् (*laṅ*) follows, is not found in Marāṭhī and the Prākrit." This derivation of the historical present is scarcely likely.

2. PISCHEL, *op. cit.* 157.

3. BHANDARKAR, *Philological Lectures* p. 221.

4. *Gaudian Languages* Pp. 138, 350.

5. *Languages of India* p, 68.

or उठला (*uṭhalā*), O. उठिला (*uṭhilā*), लेखिल (*lekhila*), B. उठिल (*uṭhila*), कहिल (*kahila*), Bih. उठल (*uṭhala*), Ass. उठिल (*uṭhila*). In Gujarātī, too, it is found in restricted use and in Sindhī[1] also. In these latter languages it is applied to already formed past participles and hence it is to be regarded as distinct from them. Even in old Marāṭhī, we find it at the end of some past participles, दीन्हला (*dīnhalā*), हाणितला (*hāṇitalā*), भिनला (*bhinalā*) (through भिन्न *bhinna*). RAJWADE[2] regards it as a स्वार्थे ल (*svārthe la*) suffix, applied to forms of past participles.

c. येरां रुखां (*Yerā rukhā*) :—These are the forms of the acc. plural. The old acc. plural ending (*ns*) न्स्, which in Sanskrit itself had dropped the final and become simply न् (*n*) as in देवान् (*devān*) is found in this form only before such words as सारखा (*sārakhā*), प्रमाणें (*pramāṇē*) etc. Ordinarily it is dropped and the base form only serves as a plural; येर रुख (*yera rukha*) would be the acc. plural. This form is responsible for the अनुनासिक (*anunāsika*) in plurals of other cases.

Today, of course, येरां (*yerā*) and रुखां (*rukhā*), would be looked upon as सामान्यरूप (*sāmānyarūpa*) or crude or base forms, *i. e.* stems before any terminations are applied to them.

Then येर (*yera*) is from एर (*era*). Māgadhī[3] (Pāli) and others insert a य (*ya*) before (*e*) ए, *e. g.* येव (*yeva*). We find in certain Marāṭhī dialects of today forms like येवढें (*yevaḍhē*), येक (*yeka*) instead of एवढें (*evaḍhē*), एक (*eka*) in normal speech. येथें (*yethē*) for एथें (*ethē*) from Pr. एत्थ (*ettha*), Sk. इत्था (*itthā*) has become current coin, although एवढें (*evaḍhē*) and एक (*eka*) would lead us to

1. BHANDARKAR, *Philological Lectures* p. 231.
2. *Jñāneswarī Grammar* p. 96.
3. PISCHEL, *Grammatik der Prākrit Sprachen*, p. 229.

expect एथें (*ethē*) here too. The *Jñāneśvarī* shows both य (*ya*) and (*e*) ए, *e. g.* एकोळ (*ekoḷa*) and येकोळ (*yekoḷa*). रुख (*rukha*) is from Sk. वृक्ष[1] (*vṛkṣa*) through Pr. रुक्ख (*rukkha*) like भिक्खु (*bhikkhu*) from भिक्षु (*bhikṣu*). The रु (*ru*) for वृ (*vṛ*) is interesting, as it is a case of *metathesis* and *samprasāraṇa*.

d. ह्मणौन (*mhaṇauna*) is the most interesting form in the passage. It is made up of ह्मण (*mhaṇa*) and औन (*auna*). This latter is the termination of the absolutive, legitimate representative of the Māhārāṣṭrī ऊण[2] (*ūṇa*) in काऊण (*kāūṇa*) for कृत्वा-नम् (*kṛtvā-nam*), Gujarātī करीनें (*karīnē*), लईनें (*laīnē*) etc. जेऊण (*jeūṇa*) also J M. जिणि-ऊण (*jiṇi-ūṇa*) from जित्वा (*jitvā*) and the like. In our present Marāṭhī, it is ऊन (*ūna*) and not औन (*auna*). In old Sanskrit the termination is त्वां (*tvām*) or त्वी (*tvī*) and त्वानम् (*tvānam*) or त्वीनम् (*tvīnam*). M. ऊण (*ūṇa*) would go back upon the latter. म्हणौनि (*mhaṇauni*), लागौनि (*lāgauni*) are also seen on the Nagaon inscription of 1367 A. D. We see therefore that the Māhārāṣṭrī has discarded the current Sanskrit termination and adopted a new one, probably from an ancient Sanskrit dialect parallel to the Vedic.

Secondly म्हण (*mhaṇa*) is the legitimate development of Sanskrit भण् (*bhaṇa*), also seen in our ह्मटलें (*mhaṭalē*), ह्मणजे (*mhaṇaje*). Not only has the word changed on its formal side, but it has also changed in its contents or meaning. Strictly the form ought to mean *after having said that*, then, *because we have said that* and from that simply, *because* or *therefore*. The word has lost much in meaning. It was a root and has now become a mere conjunction. Just as the old gerund करि (*kari*), कर (*kara*) has later in Hindī become a

1. PISCHEL, *op. cit.* p. 221.
2. PISCHEL, *op. cit.* p. 396.
3. RAJWADE, संकीर्णलेखसंग्रह No. 23.

simple suffix, making gerunds; *e. g.* लेकर (*lekara*), करकर (*karakara*).

e. भले तेव्हडी (*bhale tevhaḍī*) is a compound expression important in two ways. First of all the word भले (*bhale*). We have other combinations with this in the ज्ञानेश्वरी (*Jñāneśvarī*); भलतेव्हां (*bhalatevhā̃*), भलतेथें (*bhalatethē*) (where perhaps we have to expect भलतें तेथें (*bhalatē tethē*), with haplology of the former ते (*te*), भलतेतुकें (*bhalatetukē*) भलतेउतें (*bhalateutē*). The first part of the compound, therefore, is either भलतें (*bhalatē*) or भलें (*bhalē*). This word alone is found in several places in the ज्ञानेश्वरी (*jñāneśvarī*) either as भलतें (*bhalatē*) or as भलेंतें (*bhalētē*). We can see that भलें (*bhalē*) is in the former compound shortened to भल (*bhala*). भलें (*bhalē*) is from भद्रक (*bhadraka*) through भल्लअ (*bhallaa*). RAJWADE'S derivation[1] from हवल्ल (*haval*) is untenable. द्र (*dra*) is sometimes[2] changed to ल्ल (*lla*) in the M. and Pāli; for आर्द्र-अल्ल (*ārdra-alla*), for छिद्रित-छिल्ल (*chidrita-chilla*), *c.f.* चुल्लवग्ग-क्षुद्रकवर्ग (*cullvagga-kṣudrakavarga*). भलें (*bhalē*) or भलतें (*bhalatē*) therefore only means *good one* and then since one would always *choose* good things, भलतें (*bhalatē*) came to mean *any you choose.* Thus we find change in form accompanied by change in content or meaning.

We see, that the word भलें (*bhalē*) in this particular meaning is still retained in certain parts of Mahārāṣtra. We often hear an expression like the following: मीं तुमची सोय केली आहे; मग तुम्हांला भीक मागायची असली तर भले मागा (*mī tumacī soya kelī āhe maga tumhālā bhīka māgāyacī asalī tara bhale māgā*).

भलतें तेथें (*bhalatē tethē*) would thus mean *where you will* or *at any place.* In the same way भलतेव्हडी (*bhalatevhaḍī*) would mean *of any dimension, however much.*

1. *Jñāneśvarī Grammar*, p. 126.
2. PISCHEL, *op. cit.* 202.

तेव्हडी (*tevhaḍī*) corresponds in meaning to Sanskrit तावती (*tāvatī*). But the one is probably not to be derived from the other. तावत् (*tāvat*) becomes in Pr. दाव (*dāva*), rarely ताव (*tāva*). This with a suffix ढ (*ḍha*) and unaccountable change of आ (*ā*) to ए (*e*) would give तेवढी (*tevaḍhī*). This same process will have to be assumed for एवढी (*evaḍhī*), केवढी (*kevaḍhī*), जेवढी (*jevaḍhī*), etc. Regularly वृद्ध (*vṛddha*) ought to and does actually give वुड्ढ (*vuḍḍha*), as ऋ (*ṛ*) follows labial. But this is not an absolute phonetic law, as we find forms like मच्चू (*maccū*) from मृत्यु (*mṛtyu*), मउई (*mauī*) from मृद्वी (*mṛdvī*), वगी-वृकी (*vagī-vṛkī*); वृद्धि (*vṛddhi*) itself actually gives वड्ढी (*vaḍḍhī*) and वुड्ढी (*vuḍḍhī*). The distinction in meaning, *interest* and *growth* is not very consequent, for we find परिवड्ढी (*parivaḍḍhī*) when we should expect परिवुड्ढी (*parivuḍḍhī*). *cf* Marāṭhī वाढ (*vāḍha*). The *Karpūramañjarī* I. 34 c. has actually वअणवड्ढिमा (*vaaṇavaḍḍhimā*) for *growth, bigness,* where the sense that वड्ढी (*vaḍḍhī*) itself was an abstract noun was lost and a further abstract term was added to it. Very likely ते (*te*) is a representative of the demonstrative तत् (*tat*) through त्यत् (*tyat*), तियत् (*tiyat*) [इयत् (*iyat*) and कियत् (*kiyat*) lead to the latter] and वढी (*vaḍhī*) comes from वृद्ध (*vṛddha*), वृद्धि (*vṛddhi*), which would give वड्ढ (*vaḍḍha*), वड्ढी (*vaḍḍhī*) and ultimately वढी (*vaḍhī*). The अपभ्रंश (*apabhraṁśa*) form, which according to RAJWADE[1] is तेवड (*tevaḍa*), would corroborate this. Cf. also Jain M. एवड्ड (*evaḍḍa*) which WEBER and after him PISCHEL[2] rightly trace to इयत् (*iyat*) which becomes ए (*e*).

One word more. तेवढी (*tevaḍhī*) and तेव्हडी (*tevhaḍī*) are not separated by time; they are dialectal variations current in the same period; in the second form we have an anticipation of the aspirate in the second place, a phenomenon not un-

1. *Jñāneswari Grammar*, p. 63.
2. PISCHEL, *Grammatik der Prakrit Sprachen*, p. 113.

common in any language. The same is observed in forms like केव्हडा (*kevhaḍā*), एव्हडा (*evhaḍā*), जेव्हडा (*jevhaḍā*).

f. उलंडैल (*ulaṇḍaila*) :— This is the future of the root उलंड (*ulaṇḍa*) with the participial termination of the future ऐल (*aila*) or ईल (*īla*). This is another testimony to the same peculiarity of the modern Indian dialects, which is already seen above in the form of the preterite थावला (*thāvalā*). Excepting the Gujarātī, which has preserved Sanskrit स्य (*sya*) in forms like करीश (*karīśa*), करशे (*karaśe*), करिशुं (*kariśũ*), करशो (*karaśo*), and the Hindī करिहौं (*karihaũ*) and in a solitary Marāṭhī form करशील (*karaśīla*), a combination of the old synthetic tense and the modern termination ईल (*īla*), they have banished the old form and coined a new one for it. This ईल (*īla*), ईन (*īna*), with root ending in अ (*a*), is seen in Tukārāma; *e. g.* त्याच्या पायी ठाव मागईन (*tyācyā pāyī ṭhāva māgaīna*).

Old Hindi[1] only of the remaining dialects has preserved this remnant of the old synthetical tense. Cf. करिहौं (*karihaũ*), करिहैं (*karihaĩ*).

This root उलंड (*ulaṇḍa*) appears to be a pure Prākrit form and is not, as some suppose, connected with the Sanskrit उल्लंघ् (*ullaṅgh*). The primary sense is *to fall or cause to fall topsyturvy, to topple* or *cause to topple.* The Marāṭhī ओलांडणें, (*olāṇḍaṇē*) which has kept the form, has changed the meaning. उलंडिलें तक्राचें (*ulaṇḍilē takrācē*) of Tukārāma has still the old sense.

g. आथि (*āthi*) is from Sanskrit अस्ति (*asti*), where the sibilant, being transferred to the end of the word, gives the final its aspirate character. We find the same phenomenon in Gujarātī हाथ (*hātha*) from हस्त (*hasta*), Guj. हाथी (*hāthī*), old Marāṭhī हाथिरुं (*hāthirũ*) from हस्ती (*hastī*), पोथी (*pothī*) through पोत्थअ (*potthaa*) from पुस्तक (*pustaka*) etc. We have

1. BEAMES, *Comparative Grammar*, 3. 112.

changed the form into आहे (*āhe*), Gujarātī होय (*hoya*), Hindī हो (*ho*). Sindhi has also आहे (*āhe*).

h. रवीचां (*ravīcā̃*) is the mordern रवीच्या (*ravīcyā*), the oblique form of the possessive adjective रवीचा (*ravīcā*). The original seems to be the loc. form of the same. We find it lengthened into चिये (*ciye*) *e. g.* देवाचिये द्वारीं (*devāciye dvārī̃*) etc., which is only another form of देवाच्या (*devācyā*) by स्वरभक्ति (*svarabhakti*) in the last syllable.

This चा (*cā*) is a suffix that makes possessive adjectives of nouns. Its genesis is yet a debatable point. Krishnashastri CHIPLOONKAR[1] derived it from the Sanskrit तद्धित (*taddhita*) ईय (*īya*), and Krishṇashastri GODBOLE[2] supported his derivation. DR. BHANDARKAR[3] sees in it the phonetic descendant of the Sanskrit suffix त्य (*tya*); DAMLE[4] and RAJWADE[5] follow him. The difficulty in the latter case is, that the त्य (*tya*) is in Sanskrit added to certain indeclinables only. There would be some difficulty in deriving चा (*cā*), ची (*cī*) from ईय (*īya*) through इज्ज (*ijja*), ज्ज (*jja*), like the Sindhī जी (*jo*), जी (*jī*). Still there is the satisfaction that ईय (*īya*) is a nominal suffix. It is curious to note that the Yādava inscription of Nagaon, dated A. D. 1367 shows both जा (*jā*) and चा (*cā*). Pātan inscr. of 1208, however, has *uniformly* चा (*cā*).

g. अंधारेन (*aṁdhārena*) is the usual instrumental. We have changed the termination into नें (*nē*) by a simple transposition; other forms are जाणतेन (*jāṇatena*), मागिलेन (*māgilena*).

The Hindī and Gujarātī too have made the same change. This is primarily a pronominal termination, borrowed by nouns in अ (*a*) even in Sanskrit. The Gujarātī has preserved it in

1. *Marāṭhī Vyākaraṇāvarīla Nibandha* p. 62.
2. *Navīna Marāṭhī Vyākaraṇa*, p. 63.
3. *Philological Lectures*, p. 257.
4. *Śāstrīya Mārāthī Vyākaraṇa*, p. 347.
5. *Jñanesvarīīla Marāthī Bhasecē Vyākaraṇa* p. 14.

some of the pronouns like तेणें (*teṇē*), जेणें (*jeṇē*). The word अंधार (*aṁdhāra*) is from the original अंधकार (*aṁdhkāra*), through अंधआर (*aṁdhaāra*). Here we find that even so much as one whole syllable is lost; this is a phenomenon called *syncope*.

RAJAWADE[1] says "In short, in modern Marāṭhī the Instr. sing. was formed from the Instr. pl." पुत्तेहिं (*puttehī*), पुतेन्हि (*puttenhi*), पूतेनि (*pūteni*) पूतांनिं-पूतांनिं (*pūtānī-pūtānī*) gives the plural. Then पूतां (*pūtā*) becoming पूता (*pūtā*) and निं (*nī*) becoming नें (*nē*), we get the sing. पूतानें (*pūtānē*)! This is a piece of very subtle logic, to say the least of it. He has changed since 1912, in a criticism on DAMLE's grammar, and accepted the Sanskrit न (*na*), एन (*ena*) as the termination of the Instr. sing. RAJAWADE'S etymologies are in most cases very hasty.

Now what have we learnt from a detailed examination of all these words? We have learnt, (1) that there is phonetic change in the body of a word, whereby it is understood that the meaning is not changed, *e. g.* अंधार (*aṁdhāra*), थाव (*thāva*), रुख (*rukha*) etc; (2) that there is formantic change or a change in the terminations etc. *e. g.* संवसारु (*saṁvasāru*), जाणें (*jānaī*), थावला (*thāvalā*), अंधारेन (*aṁdhārena*) and (3) that there is change in meaning, it being understood, that all the while, the form is supposed to be one and the same, ह्मणौनि (*hmaṇauni*), भलें (*bhalē*), It should not be supposed, that both these changes might never take place together. (4) Lastly, there is change in the syntax. The whole passage shows a departure from our modern sentence form.

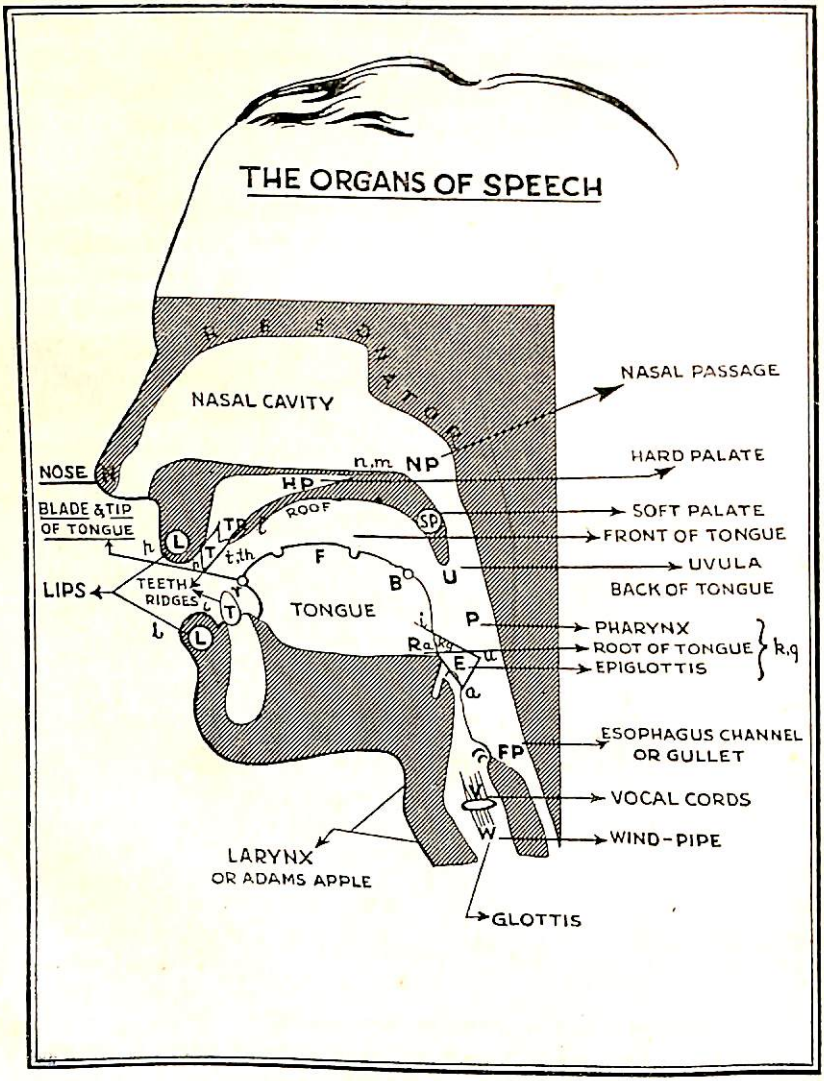
13. THE CAUSES OF CHANGE:—What then are the causes of the change that leaves no unit of the sentence—the sound, the syllable, the word, and the sentence itself—untouched? What leads to the phonetic change, as well in the root form

1. *Jnyāneshwarī Grammar* p. 26.

as in the formantic element of a word? Why should the meaning of words undergo transformation?

The causes of formantic change

A reply to this question, so far as phonetic change is concerned, is already indicated in the beginning. The very fact of the acquisition of language presupposes change; for no generation can take up a language from its predecessors in exactly the same outward form. This change might be caused in the production of speech by one individual, as also in the transmission of speech from one individual to another. (1) In imitation therefore there is a potent cause for change. But, as we have seen, an individual also imitates himself, when he is engaged in the production of speech. This, OERTEL calls *intra-individual* imitation. (2) On the analogy of certain known forms certain others are produced. Analogy based upon association, is the second cause of change. If the former cause is mainly physiological—for much depended on the power of the individual's ear in properly hearing sounds and upon the power of his eye in noticing the positions of the speech organs, and thirdly upon the speech-organs themselves, which reproduced the observed positions,—this latter is psychological. Besides the examples already quoted from child language, others may be added. एकादश (*ekādaśa*), for instance, owes its long vowel आ (*ā*) to द्वादश (*dvādaśa*), where it is legitimate as being a dual form, with which the former is associated. Of this more below. (3) Accent is anothr factor which causes change. The shifting of accents backwards or forwards, causes the loss of whole syllables; *e. g.* Fr. *frere* which is the poor remnant of Latin *frater*. The Marāṭhī अठंगळें (*aṭhaṁgalē*) is the remnant of the Sk. अष्टमांगल्य (*aṣṭamāṁgalya*); वाहाण (*vāhāṇa*) through पाहाणओ (*pāhāṇao*) of उपानहो (*upānaho*); or in the above passage अंधार (*aṁdhāra*) of अंधकार (*aṁdhakāra*). Other causes like general conditions of culture, mixture of races, conquest, mixture of dialects etc. may cause change. But compared


THE ORGANS OF SPEECH
NASAL CAVITY
NASAL PASSAGE
NOSE
HARD PALATE
SOFT PALATE
FRONT OF TONGUE
UVULA
BACK OF TONGUE
BLADE & TIP OF TONGUE
LIPS
TEETH RIDGES
TONGUE
PHARYNX
ROOT OF TONGUE
EPIGLOTTIS
ESOPHAGUS CHANNEL OR GULLET
VOCAL CORDS
WIND-PIPE
LARYNX OR ADAMS APPLE
GLOTTIS

with the above, they are not very potent. Because even where race mixture, conquest and such other cultural conditions are absent, we see that constant change is going on in language. The Dravidian languages, comparatively at peace and safe from foreign invasion for a long period, are a good case in point.

a. PHYSIOLOGICAL AND ACOUSTIC CAUSES OF CHANGE:— All change proceeds along certain lines. For reasons already explained (the psycho-physical disposition of the individual of a community speaking one language, is at any one period in the life of that language generally the same), any change in the body of a form or its ending (phonetic and morphological change) spreads itself evenly over all similar forms and endings. This is, as we have already pointed out, due to the transmission of language from one individual to another and from one generation to another generation. This transference can only be the transference of the sounds, not of the accompanying physical and psychical processes. These belong to every individual separately. When the hearer's sounds correspond to those of the speaker, then only is the former said to speak correctly. When a similar sound is produced, we can safely infer, that the motory sensation preceding it is also the same. It is, however, possible to produce an almost similar sound by different movements of the speech organs; it must, therefore, be admitted as possible, that the motory sensations (feeling of movement) of a hearer are a bit differently formed from those of the speaker. It is chiefly owing to this that the sound of *t* and *t* is so similar, although their articulation is different. It is the motory sensation[1]

1. PAUL, *Prinzipien der Sprachgeschichte* p. 57.

The Science which accounts for the phenomenon of sound is called *phonetics*. With the help of modern scientific apparatus we are now able accurately to count the number of vibrations produced by us when we pronounce words. Thus, we know that the two *o's* in *moon* produce

which principally determines the production of a sound ; *ease* plays a very insignificant part.

When a change, thus produced by an individual speaker in an individual form, spreads itself over similar forms in the whole language, it becomes a regular change. It is this regularity of the change, as also of the preservation of the old material, that makes linguistic study possible. The rules deduced from such a uniform change or preservation are called *phonetic laws*. When, for instance, a certain sound in a word is kept on or undergoes change, this also happens in all similar words under the same conditions; *e. g.* the Sanskrit initial स (*sa*) is preserved in Mar. words like सात (*sāta*), साडे (*sāḍe*), सर्व (*sarva*) from Sanskrit सप्त (*saptá*), सार्ध (*sārdha*) सर्व (*Sárva*) ; but in certain Gujarātī dialects it becomes ह (*ha*) *e. g.* हात (*hāta*) and हाडा (*hāḍā*), हामान (*hāmāna*), हंभाळ (*haṁbhāḷa*) (*Surat*). The initial Sanskrit व (*va*) which is preserved in Mar. words like वीस *vīsa*), विष (*vīṣa*), वाघ (*vāgha*), वेत (*veta*), becomes in Hindī ब (*ba*) as बीस (*bīsa*), बिख (*bikha*), बाघ (*bāgha*), or ब्याघ (*byāgha*), बेत (*beta*. If the cause for the former change, Sk. स (*sa*) into Guj. ह (*ha*), is mainly physiological – the stop of the breath at the hard gums in pronouncing the sibilant which is already loose and lets the

(Continued from p. 33.)

225 vibrations per second. The long ā in *mā* produces 1050 vibrations per second. Our vocal cords are like violin strings. They vibrate as a whole and also in segments. Thus if the whole cord produced 100 vibrations per sec. half the cord will produce 200 vibrations. We are now able to define the vowels as pure *voice* without any co-mmingling of other elements. A consontant is a *noise* produced when the pur· vibrations are stopped by the speech organs. There are two varieties of stops: Sudden and gradual or, more technically, *explosive* and *frictional*. Thus *pt, k* are explosive stops. *S, sh, z, th* are frictional stops: *ch* and *j* are called affricates because they have an element of friction in their make-up. Our vocal cords are very delicate. Our mouth acts as a resonating agent. The resonating power of our mouth makes our voice nearly 300 times louder. There are also Implosive sounds or recursives as in Sindhi ڪ. (ed).

breath pass away sideways, becomes still looser or is completely removed and we get the aspirate—the cause of the latter change, of the Sk व (*va*) into Hindī and Bengalī ब (*ba*), is more acoustic than physiological. The same is the case when the Germans try to pronounce the English *th* in *the, there, that;* they say *ze, zere, zat* and believe that they have rightly pronounced the word. The same probably happens when a Japanese always substitutes an *l* for *r* in foreign words. The basis of articulation (*i. e.* structure and position of the speech-organs) in his case has so altered itself, that he cannot physiologically distinguish between the two sounds and his ear also has got so accustomed to the *l*, that it makes no difference between *l* and *r*. The Munician confusion between *p* and *b*, mentioned above, is also a good example. The ear and the basis of articulation are thus both interfering with each other in changes like the two above.

14. WHAT IS PHONETIC LAW:—The phonetic change indicated above is caused by a change in the conditions of the production of the respective sounds. When, for instance, the original medial aspirate is always seen in Greek to change into a tenuis aspirate *e. g.* Sk. नभस् (*nábhas*), Gr. νέφος (*néphos*); Sk, भ्रातर् (*bhrátar*), Gr. φράτηρ (*phrátīr*); Sk (*bhájati*), भजति Gr. φαγειν (*phágêin*); Sk. धर्षति (*dhárṣati*), Gr. θάρσος (*thársos*): Sk. मधु (*madhu*), Gr. μέθυ (*méthu*); we infer that different representation of the same sound in two languages is due to causes that we call physiological, and we make the generalization, that original medial aspirates are always in Greek changed to ten-aspirates. This generalization of a regular phenomenon in language we call *phonetic law.* We make the same generalization when we observe correspondences like Sk. भरति (*bhárati*), Lat. *ferō;* Sk. भवति (*bhávati*), Lat. *fuam, futurus;* Sk. धूमः (*dhūmáḥ*), (Gk. θυμός, (*thūmós*) O. Ir. *dumacha* = mist,) Lat. *fūmus;* Sk. धयति (*dhâyati*), धेना (*dhénā*), Lat. *fē·lare, fēmina;* only, in the two latter cases the place of articulation or स्थान (*sthāna*)

is changed in the old Italic dialects, so that the dental ध (*dha*) has become the labial फ (*pha*). A comparison of Sk. तुभ्यम् (*tú-bhyam*) and Lat. *ti-bi*, Sk. रुधिर (*rudhirá*) (= red), Gr. Ερυθρός (*éruthrós*), O. Ir. *ruad* and Lat. *rubros*, Sk. इध (*idha*), (original of इह *iha*) and Lat. *ibi*, Sk. नभस् (*nábhas*) and Lat. *nebula*, enables us to generalise, that even the ten. aspirate representing the original medial aspirate, is shifted in Latin to a simple medial *between two vowels*. Thus the original *law* is modified by a change in the surroundings of the original sound. Conversely, comparison of Lat. *for-es* and Sk. द्वार (*dvāra*), Lat. *fortis* and Sk. दृढ (*dṛḍhá*), Lat. *of-fendimentum* and Sk. बन्धः (*bandháḥ*), shows that the ten. aspirate, Latin representative of the original medial aspirate, finds in Sk. a medial to represent it; the Sk. form must, therefore, have been धृढ (*dhṛḍha*), ध्वार (*dhvāra*), भन्ध (*bhandha*) in consonance with the original law. That the roots गृध् (*gṛdh*), बुध् (*budh*), बध् (*badh*), दभ् (*dabh*), दह् (*dah*), and others, must have originally begun with a med. asp. which was displaced before the following med. asp, or ह् (*h*) in the body of the word, is shown by comparison with Goth.*gredus*, Eng. *greed;* Goth. *biudan*, Ger. *bieten;* Germ. *binden;* Arm. *davel;* O. E. *dœg*, (cf. Sk. निदाघ, (*nidāgha*), G. *tag*, Goth.*dags*, Eng. *day*, and others whose initial corresponds to an original med. aspirate. Even some Sk. forms of these roots throw light on this fact; *e. g* अभौत्सीत् (*abhautsīt*) (बुध्) (*bōdh*), अभान्त्सीत् (बन्ध्) (*abhāntsīt-bandh*), अधक् (*adhak*) (Vedic of दह् (*dah*), Pr. ढज्जति (*ḍhajjati*) for दह् (*dah*) is also eloquent. We therefore put forward the law, that in Sk. a medial aspirate becomes a medial, when followed by a medial aspirate in the same word. This is *dissimilation* of which we have to speak later on.

Coming to the Aryan group, we compare Sk. त्वम् (*tvám*) and Av. *θwam*, Sk. त्रि (*trí*) and Av. *θri*, Sk. मित्र, (*mitrá*) Av. *Miθra*, Sk चत्वारः (*catvárāḥ*) Av. *caθwara* and find that

in Avesta a dental spirant corresponds to the Sk. tenuis. The Sk. स (*sa*) in सप्त (*saptá*), सत्य (*satyá*), सिन्धु (*sindhu*), etc., is represented by the aspirate *h*, as in *hapta, haiθya, hindu* in the Avesta. In this the Greek agrees with the Avesta; *e. g.* ἑπτά (*héptá*) ἕδος (*hédos*), Sk. सदस् (*sádas*). Compare हगडा (*hagaḍā*), हाडा (*hāḍā*) and हात (*hāta*) of vulgar Gujarātī.

a. GRIMM'S LAW OR SOUND SHIFTING :—The Sanskrit, Greek, Latin and Slavonic languages have generally preserved the consonants as they originally were, except local changes indicated above. But the Germanic languages show a wholesale change, as the following equations will show :

1 Tenues.

Sk.	Gr.	Lat.	Goth.	Germ.	Eng.
पशुः (*paśuḥ*)		*pecus*	*faihu*	*vich*	*fee*
नपात् (*nápāt*)		*nepos*		*neffe*	*nephew*
तृणम् (*tṛ́ṇam*)			*þaúrnus*	*dorn*	*thorn*
वर्तते (*vártate*)		*verto*	*wairþan*	*werden*	
त्रयः (*tráyaḥ*)		*trēs*	*þreis*	*drei*	*three*
शुनः (*śúnaḥ*)	κυνός (*kunós*)		*hunds*	*hund*	*hound*
(श् for *old* क्)	(ś for *old k*)				
दिशति (*diśáti*)	δείκνυμι (*deíknumi*)		*gateihan*	*zeigen*	
कः (*kaḥ*) *Ved* कद् (*kad*)		*quod*	*hwas*	*was*	*what*[1]

1. The pronunciation of this word is still true to its genesis. We pronounce it properly as *hwat.*

Further examples from the Teutonic group will be found interesting by Students of the English Language :

Skr.	Greek	Teutonic.	
कः (*kaḥ*)	...	Goth.	*hwas*
		O. E.	*hwa* = who
तृषा' (*tṛṣá*)	(*térs-ómai*)	Goth.	*thairsan* = to be dry
	τέρσομι	O. E.	*thurst* = thirst.
श्वश्रू (*śvaśrū*)	ἑκυρα (*hekurá s:vekúrá*)	O. E.	*sweger* = mother-in-law
घर्मः (*gharmaḥ*)	θερμός (*thermós*)	O. E.	*wearm* Norse *varmr* = warm.—Ed.

Asp. Sk.	Gr.	Angs.	Germ.	Eng.
फेन (*phéna*)		*fam*	*feim*	*foam*
	θρέζομαι (*thrézomai*)	Goth. *þragjan*		*thrall*
(*kh*)		,, *haban*		*have.*

We see therefore that the original ten. and the ten. aspirates have fallen together in the old Germanic language and are represented alike by hard spirants; *i. e. p, t, k,* and *ph, th, kh,* are represented by old Germanic (*e. g. Gothic*) spirants *f, þ, χ,* (pron. ch).

2 Mediae.

Sk.	Lat.	Goth.	Germ.	Eng.
	duco	*tiuhan*	*ziehen*	*tie, tow*
	Lith. *dubus*	*diups*	*tief*	*deep*
दश (*dáśa*)	*decem*	*taihun*	*zehn*	*ten*
जानु (*jā́nu*)	Gr. γόνυ, (*go'nŭ*)	*kniu*	*kuie*	*knee*
अज्रः (*ájraḥ*)	,, ἀγρός, (*ágrós*)	*akrs*	...	*acre*
युगम् (*yugám*)	,, ζυγον, (*zugón*)	*juk*	*joch*	*yoke*

Asp.

भरामि (*bhárāmi*)	Gr. φέρειν, (*pherein*)	*bairan*		*bear*
(वसु) धितिः (*vásu*) *dhitiḥ*,	θέσις, (*thésis*)	*ga-dēds*		*that deed*
हंसः (ह = घ) (*haṁsáḥ*) (*ha* = *gha*)	χήν, (*khḗn*)	*O.H.G. gans*		*goose*
वहामि (*váhāmi*)	Lat. *veho*	*gawigan*	*bewegen*	*weigh*

This is called sound-shifting, in German *Laut-verschiebung*, of the Germanic languages, or after its traditional discoverer GRIMM, simply GRIMM'S law.[1] This, however, is only the first sound-shifting, which took place even before the Christian era, as certain references of the old Roman historians show. There was another sound-shifting, which appears to have taken place after the Anglo-

1. DANE RASK was the real discoverer of this law. He published the results of his investigations in 1818 and they were adopted by GRIMM in the second edition of his *Deutsche Grammatik*, in 1821.-Ed

Saxons separated from their North-German cousins, about the seventh or eighth century.

b. SECOND SOUND-SHIFTING:—If we cast a glance at the last three columns of the examples for the first shifting according to GRIMM, we shall find, that in most cases the Gothic or other forms of the old Germanic, correspond to the Anglo-Saxon and English forms but that the German forms *i.e* High-German forms, disagree.

Goth. has	*þaurnus*	Eng. *thorn*	but Germ. *dorn*
	þreis	*three*	*drei*
	ga-teihan		*zeigen*
	dags	*day*	*tag*
	helpan	*help*	*helfen*
	plegen	*play*	*pflegen*

This leads us to formulate the law, that old Germanic *p*, *t*, *k*, become the affricates *p f*, *t* 5. (written *z*), *k*, χ (written *ch*), and the hard spirants *f*, þ, and χ become soft spirants *b*, *d*, and *z* (which last disappears intervocally); *z* becomes *r*—(O. H. G. *was* : *warun*). This is called the *second sound-shifting*. The Anglo-Saxon escaped this shifting, as did certain *Low German* dialects. This is an important fact. Thereby we know the limitations of phonetic laws. They have thus a time limit as well as a place limit, and we have, therefore, to be very cautious in formulating them. When we, therefore, put forward a phonetic law, we have to indicate all its limitations. "It is, in fact, nothing more or less, than generalization based upon observed linguistic facts and holding good *under stated conditions only.*"

c. VERNER'S LAW:—To quote one more example, where the conditions are slightly different from what we have already spoken of. पिता (*pitā*), Gr. πατήρ, (*pat'ēr*), Lat. *pater* becomes in Goth. *fadar*, Eng. *father*, where indeed we expect a *þ* in place of *d*, as in Goth. *broþar* which corresponds

to Sk. भ्राता (*bhrātā*), Lat. *frater*, Eng. *brother*. etc. In old days it was thought to be an irregularity and left unaccounted for. But when the idea of phonetic law was formulated and began to be scrutinized, linguisticians were not satisfied with saying that it was an irregularity, but wanted to trace the reason. And it was found out by VERNER, who, on observing other similar cases, *e. g.* Goth. *sibun*, Sk. सप्त (*saptá*); Goth. *halsagga* Sk. अंकः (*aṁkáḥ*), *haidus* (Germ-*heit*) Sk. केतुः (*ketúḥ*) O. H. G. *swigar*, Sk. श्वश्रू (*śvaśrū́*) where श (*śa*) represents old क (*ka*), put forth another law, a corollary to GRIMM's law, that the HARD SPIRANTS *f*, *þ*, *χ*, (फ्, ठ्, ख्) (*ph*, *th kh*) in the middle or at the end of words *become* SOFT, only when the original Indo-Germanic accent was not on the immediately preceding syllable. This is what is called VERNER's law, after its discoverer.

We have been dealing upto now with what is called phonetic change as such, and then too, of consonants. This change is not at all affected by the character of the neighbouring sounds and is therefore called *Unbedingter Lautwandel* or unconditional phonetic change.

d. UNCONDITIONAL PHONETIC CHANGE :—We shall now take examples of vowel change from the Aryan group.

I. When we compare *e. g.* Sk. भरामि (*bhárāmi*) which shows an अ (*a*) in the first syllable with Gr. φέρω, (*phérō*) Lat. *fero*, Arm. *berim*, Got. *baira* and Old Sl. *bera*; Sk. अहम् (*ahám*), Av. *azem*, with Gr. ἐγώ, (*egṓ*),[1] Lat. *ego*, Arm. *es*, Goth. *ik*; or Sk. अश्वः (*áśvaḥ*), Av. *aspah* with Lat. *equos* Goth. *aihwa*, we find that Indo-Aryan अ (*a*) is, in these and other cases, represented by *e* in all the other languages of the great family; see also Sk. अस्ति, (*ásti*), Lat. *esti*, Goth. *ist*.

∴ Sk. and Av. अ = *e* in the other Indg. languages.

1. KARL ADOLPH VERNER formulated this law in 1875. It explains certain apparent exceptions to GRIMM's law. There is a *hexameter* about the exceptions to GRIMM's law which is quoted on page 41.

[*Continued from previous page*]

THE GRIMM-VERNER Hexameter.

INDO-ARYAN & SANSKRIT		पद् (*pada*)	अज्रय् (*ajras*)	शतं (*satem*)	भर् (*bhar*)	धे (*dhe*) *or* धो (*dho*), दीधिति (*dīdhiti*)	
GREEK	τυρβη (*turbi*)	πόδας (ἐν) (*podas*) (*én*)	ἀγρόσς (ἐ) (*àgross*) (*è*)	κατόν (ἔ) (*kato'n*) (*e*)	φέρε (τ) (*phere*) (*t*)	θετά (ετη) (*titheti*)	χόρτοις (*khortois*)
LATIN	*turba*	*pedes* in	*agris*	*centum*	*fert*	*facta* et	*hortis*
OLD ENGLISH Teutonic & German)	*thorp* (village) Dutch-*dorp*	*feet* in	*acres*	*hund* red	*bear*eth	*deed*	*garth*= *yard* —Ed.

II. Taking other words :—

Sk. अविः (*áviḥ*) Lat. *ovis* Gr. ὄις (*ois*) O. Ir. *oi*

,, अष्टौ (*aṣṭaú*) ,, *octo* ,, ὀκτώ (*oktṓ*) ,, *ocht*

,, कः (*káḥ*) ,, *quod* ,, πόθεν (*pó-then*) Ved कद् (*kad*)

,, भरन्ति (*bháranti*) ,, ... ,, φέρουσι (*phéronsi,*) (*for onti*), cf Dor. φέροντι (*phéronti*) O. Per. *barantiy*).

,, असचत (*ásacata*) ,, *sequitur* ,, εἵπετο (*eípeto*)

,, तत् (*tát*) ,, *is-tud* ,, τό (*tó*) Goth. *þata*

,, वृकः (*vṛ́kaḥ*) ,, ,, λύκος (*lúkos*)

We can formulate our law thus :—Indo-Aryan अ (*a*) is in some words represented by *o* in most of the other Indo-European languages, only the Germanic showing a similarity with the Sanskrit.

∴ Sk. and Av. अ (*a*) = *o* in the other Indo-European languages except Germanic.

e. g. Sk. जम्भः (*jámbhaḥ*) Gr. γόμφος (*gómphos*)
but Goth-*chamb*

,, ददर्श (*dadárśa*) ,, δέδορκα (*dédorka*)
but Goth *band* (perf. of *bindan*)

,, भरन्ति (*bháranti*) Gr. Dor. φέροντι (*phéronti*)
but Goth *bairand*

III. And lastly comparing

Sk. अजति (*ájati*) Gr. ἄγω (*ágo*)
Lat. *ago* Arm. *acem* O. Ir. *agat*

,, (चतुर्) अश्र (*catúr*) (*áśra*) ,, ἄκρος (*akros*) ,, *acus*

Sk. अनिति (*ániti*) Gr. ἄνεμος „ *animus* Goth. *us-anan* (*ánemos*)

„ अज्रः (*ájraḥ*) „ ἀγρος „ *ager* „ *akrs* E. *acre* (*ágrós*)

„ अश्मन् (*áśman*) „ ἄκμον (*ákmon*) Av. *asman*

and so on, we find that the Indo-Aryan अ (*a*) is also represented by an *a* in the other languages of the family. Thus we find that an Indo-Aryan अ (*a*) finds in the other languages sometimes *e*, sometimes *o*, sometimes *a* to represent it. The same is the case with आ (*ā*).

IV. Sk. आदिवः (*ādivaḥ*) Gr. ἐδηδώς (*edēdós*) Lat. *edimus*

„ प्रातः (*prātáḥ*) „ πλῆτο (*plēto*) „ ...
(p.p. of प्रा to fill)

„ मास् (*mās*) Gr. μήν (*mén*) Lat. *mēnsis* Goth. *mena*. E. *month*.

„ स्नावन् (*snāvan*) Gr. νῆμα (*nēma*) Let. *némen* Goth. *neþla* E. *needle*

∴ आ (*ā*) = *ē* in other Indo-European languages

V. Sk. ददाति (*dádāti*) Gr. δίδωσι (*didōsi*) Lat. *dōnum*

„ द्वा (*dvā*) „ δύω (*dúō*) „ *duo*

„ प्रातः (*prātáḥ*) (morning) „ πρωι (*prōi*) Osk. (Italian dialect) *prūterpan* O. H. G. *fruo*

∴ आ (*ā*) = *ō* in the Western Indo-European languages.

VI. Sk. मातर् *mātár* Gr. (*Dor*) μάτηρ (*mátēr*) Lat. *māter* *Old Ir. Māthir*

„ स्वादुः (*svádu*ḥ) „ ἁδύς ἡδύς (*had'us, hídús*) „ *suāvis* „ ...

„ भ्रातर् (*bhrātar*) „ φράτωρ (*phrāter*) „ *frāter* „ *brāthir*

∴ आ (*ā*) = *ā* in Gr. Lat. and other Western Languages.

When the science of philology was in its infancy, it was believed by scholars like BOPP, GRIMM and others, that the

vowels in the Indo-Aryan branch represented the old conditions and that the single and simple अ (*a*)split up later into three vowels *a, e, o.*

For a long time this view was accepted as the correct one. But such a phenomenon was after all unprecedented in the life of any language and younger philologists like AMELUNG, BRUGMANN and COLLITZ, disbelieving it, tried to show that the Greek language had preserved the original vowels in their entirety and therefore presented a more faithful picture of the primitive Indo-German vocalism than did Sanskrit.

They based their conclusions chiefly on the following grounds :—Firstly a splitting up of the *a* into *a, e,* and *o* can not be phonetically proved ; secondly, in those cases where Indo-Aryan अ (*a*) corresponds to Greek *e*, there appears before that vowel a palatal instead of a guttural ; *e. g.*

Sk. च (*ca*), Gr. τε (*tĕ*) (the *t* for *kw* for certain[1] reasons in Greek.) Sk. संचते (*sâcate*), Gr. ἕπεται (*hepetai*), Lat. *sequor*; Sk. चिति: (*citiḥ* atonement), Gr. τίσις (*tisis*) ; ποινή (*poinĕ̄*,) Av *kaena*, Old. Bul. *cena* fine ; Sk. चित् (*cit*), Gr. τι (*tí*), Lat. *quid* ; Sk. जनस् , (*jánas*), Gr. γένος (*génos*) ; Sk, चत्वार: (*catvāraḥ*) :, Gr. τέτταρες (*téttarĕs*) ; Sk. पञ्च (*pāñca*), Gr. πέντε (*pĕ́ntĕ*), Lat. *quinque*.

But when the अ (*a*) corresponds to Gr. Lat. etc. *a* or *o*, this change does not take place ; Sk कतर: (*kataráḥ*), Gr. πότερος (*potĕ́ros*), Lat. *quod* ; Sk. कट: (*káṭaḥ*), Pruss. *kortos*, (Eng. *court*) ; Sk. क्रवि: (*kraviḥ*)., Lat. *cruor*, Ger. *roh O. sax. hrā*; Sk. कर्क: (*karkáḥ*), कर्कट: (*karkaṭaḥ*,) Gr. καρκίνος (*karkinŏs*) Lat. *cancer*.

1. HIRT *Handbuch der Griechischen Laut und Formen Lehre* p. 202. The Indoger, labiovelar *kw* = Lat. *qu*, Got. *hw*, Sk. क or च, (*ka* or *ca*). Old Bul. *k* or *c*. Lith *k*, but Greek π (*p*), where the labial character predominates and a *t* before *e*, and *i*.

These correspondences show, that originally, Sk. अ (*a*) which showed in Gr., Lat. etc. an *e*, was not the same as the अ (*a*) which stood for Gr. and Lat. etc, *a* or o; and that in the primitive Indo-Aryan period, it had almost an इ (*i*) colouring, because the palatalization of original gutturals only takes place before इ (*i*) or य् (*y*). This change from gutturals to palatals under certain conditions, is discovered in the Sanskrit language itself. In the perfect, where the reduplication vowel is *e*, *e. g.* Gr. δέδορκα (*dédŏrka*), γέγονα (*gégŏna*), Lat. *tetigi*, we have in Sk. a palatal in the reduplicative syllable, but a guttural in the original reduplicated syllable; *e. g.* Sk. चकार (*cakāra*), जगाम (*jagāma*), जघान (*jaghāna*), etc.

A similar phenomenon is observable before the suffix (*a*) अ which does not correspond to *e* in Gr. and Lat. It shows the original guttural before it; *e. g.* शुचिः (*śuciḥ*) but शुक्रः (*śukráḥ*), रोचते (*rócate*), लोचन (*locana*), but रोक (*roka*) and लोक (*loka*); ओजस् (*ójas*) but उग्रः (*ugráḥ*). This is the celebrated *palatal law* in Sanskrit.

It must be remembered that the *e* and *o* are simple vowels and not diphthongs like Sk. ए (*e*), and ओ (*o*). It is, however, remarkable, that the Prākrits unlike the Sk., should appear to possess the simple vowels[1] *e*, *o*. The *e* appears before conjuncts to represent Sk. *a*, *i* or *e*; Pr. एत्थ (*ettha*), Sk. इत्था (*itthā*), Mar. पेण्ड (*Peṇḍa*), Sk. पिण्ड (*piṇḍa*); Pr. गेण्हइ (*geṇhai*), Sk. गृह्णाति (*grhṇāti*); Pr. तेत्तीस (*tettīsa*), Sk. त्रयस्त्रिंशत् (*trayastriṁśat*). In the same way the *o* of Prākrits represents Sk. उ (*u*) before conjuncts. Mar. तोण्ड (*toṇḍa*), Sk. तुण्ड (*tuṇḍa*); सोण्ड (*soṇḍa*), शुण्डा (*śuṇḍā*); Pr. पोक्खर (*pokkhara*), पुष्कर (*puṣkara*); मोग्गर (*moggara*), Mar. मोगर *mogara*), मुद्गर (*mudgara*). Long *ī* and long *ū* are also likewise represented in the Prākrits; जाणेज्जा (*jaṇejjā*) (Mar.

1. PISCHEL, *Grammatik der Prakrit Sprachen* p. 47. JACOBI *Erzählungen in Māhārāṣṭrī* p. xxi.

जाणिजे (*jāṇije*) for जानीयात् (*jānīyāt*); कोप्पर (*koppara*) for कूर्पर (*kūrpara*), मोल्ल (*molla*) for मूल्य (*mūlya*).

The change of the original *e*, *o* into Sk. अ (*a*) is an *unconditional* change and the change of the gutturals into palatals consequent upon the change of *e* into अ (*a*), is a *conditional* change. As further examples of *unconditional* change ought to be quoted Pr. पीढ (*pīḍha*), Coll. Mar. पिढें (*piḍhē*), Sk. पीठ (*pī'tha*); मिग (*miga*), Sk. मृग (*mṛga*); हियय (*hiyaya*), Mar. हिया (*hiyā*), Sk. हृदय (*hṛdaya*); वेरग्ग (*veragga*), Sk. वैराग्य (*vairāgya*). सीह (*sīha*), Sk. सिंह (*simha*) and अंसु (*aṁsu*), Sk. अश्रु (*aśru*) show us that as far as quantity went, a long and a nasalized vowel were regarded as equal. But there is no acknowledged condition or cause of such a change.

The consonantal changes referred to previously and the vowel changes now referred to, are called unconditional changes. BRUGMANN[1] defines unconditional change thus: "Unconditional phonetic change is the change which an individual sound undergoes, without the determining influence of the particular kind of the accompanying sounds, or the accent, or the language rhythm, while conditional change is where such influences take place".

(e) CONDITIONAL PHONETIC CHANGE :—Suitableness of place of a sound in a word-initial, medial, final–accent, contact of two words in a sentence or सन्धि (*sandhi*) etc., influence of neighbouring sounds, make what are called conditional changes.

(1) In Greek, for example, consonants at the end of a word fall out, with the exception of ν (*n*), σ (*s*), ρ (*r*) : Gr. ἔφερε (*ephĕrĕ*). Sk. अभरत् (*ábharat*) but Gr. ἔφερον (*ephĕrŏn*) अभरन् (*ábharan*). The Sanskrit does not suffer two consonants to stand at the end of a word, with the exception of *k*, *t*, *d* and *t*,

1. KURZE, *Vergleichende Grammatik*, p. 38.

when they follow a *r* in the Vedic language[1]: वर्क् (*vark*) 3rd sing. Aorist of वृज् (*vṛj*), उर्क् (*urk*) nom. sing. of ऊर्ज् (*ūrj*), अमार्ट् (*amārṭ*), अमार्ड् (*amārd*), आवर्त् (*āvart*) 3rd sing. Aorist of वृत्, (*vṛt*) सुहार्त् (*suhārt*) for सुहार्द् (*suhārd*). Examples for the rule are: वाक् (*vāk*) (वाक् + स्) (*vāk+s*), क्रीडन् (*krīḍan*) (क्रीडन्त् + स्) (*krīḍant+s*), अभरन् (*abharan*) (from अभरन्त् *abharant*).

The Prākrits (Māhārāṣṭrī particularly) like the Gr. do not at all allow a consonant to stand at the end of a word: पच्छा (*pacchā*), Sk. पश्चात् (*paścāt*), जाव-यावत् (*jāva-yāvat*), पुण-पुनर् (*puṇa-punar*), सम्मं-सम्यक् (*sammaṁ-samyak*). The nasals become अनुस्वार (*anusvāra*).

The Prākrits change an initial ऋ (*ṛ*) to रि (*ri*) or sometimes to रु (*ru*), रिण (*riṇa*) (Mar. रीण *rīṇa*)—ऋण (*ṛṇa*), रिक्ख (*rikkha*) (Mar. रीस *rīsa*)—ऋक्ष (*ṛkṣa*), रुक्ख (*rukkha*) (Mar. महा-रूख) (*mahā-rūkha*). वृक्ष (*vṛkṣa*).

(2) Many changes in sounds are dependent upon accent, *e. g.* Goth. *fadar* for पितर् (*pitár*) but *bropar* for भ्रातर् (*bhrátar*). VERNER'S law is a great illustration of this class. The change of Indo-Germanic tenues *p, t, k*, into sounding spirants *b, d,* ȝ. instead of into *f,* þ, *h,* as we expect according to the law of sound-shifting called GRIMM'S law, is entirely dependent upon accent. Original *p, t, k,* become the sounding spirants *b, d,* (*h,x*) only if the preceding sonant does not bear the accent *e. g.* Got. *hund*, Sk. शतम् (*sátám*); O. H. G. *Swigar*, Sk. श्वश्रूः (*śvaśrūḥ*), Gk. *hekurá*, O. E. *sweger*.

What is called *ablaut*[2] or vowel gradation, a phenomenon which played a great part in the formative period of most of the [3]Indo-German languages, is held by scholars to depend

1. MACDONELL, *Vedic Grammar*, p. 61.
2. MERINGER, *Indogermanische Sprachwissenschaft*, p. 88 ff.
3. In England and France, the term Indo-European is preferred. Hereafter, Indo-Germanic=Indo-European, throughout the book. Ed.

entirely upon accent. *Ablaut* means the change, qualitative or quantitative, of the vowel phenomenon between related words or parts of words; *e. g.* πέτομαι (*pĕtŏmai*), ποτάομαι (*pŏtăŏmai*) ἐπτόμην (*ĕptomīn*).

Here the medial form of the present shows *e* under accent, and the variant *o* before it, and is altogether dropped when it is further removed. These are called the *e*, the *o* and the *nil* grades.

δέρκομαι (*dĕrkŏmai*), δέδορκα (*dĕdŏrka*,), ἔδρακον (*edrakŏn*)

Sk. ददर्श (*dadárśa*), दृष्टे (*dṛṣṭá*).

This gives ερ, ορ, ρ, (*ĕr, ŏr, r*) *i. e. nil* as the grades.

The series of forms showing *e* or *o* are called the strong and the series showing *i, u, l, r,* or *nil* the weak grade. Diphthongs too show the gradation. Thus there would be:

Strong grade.		Weak grade.
e	: *o*	*nil*
ei	: *oi*	*i*
eu	: *ou*	*u*
em	: *om*	*m*
en	: *on*	*n*
er	: *or*	*r*
el	: *ol*	*l*

Examples:

Gr.[1] πέδα (*pĕda*) πόδα (*pŏda*) ἐπίβδα (*epíbda*)

(*f*) *eidomai* (*f*) *oida* (*f*) *íd-eiv*

... वेद (*véda*) विद्म (*vidmá*)

πατέρες (*patéres*) απάτορες (*apátorĕs*) πατρός (*patrŏs*)

पितर: (*pitáraḥ*) त्वत्पितार: (*tvátpitāraḥ*) T. S. पित्रा, (*pitrā́*)

पितृषु (*pitṛ́ṣu*)

1. WACKERNAGEL, *Altindische Grammatik* I. 61 ff.

φέρω (*phérō*)	φορός (*phórōs*)	δι'φρος (*diphrŏs*)
भरे (*bhárè*)	बभार (*bábhāra*)	(श्व)-भ्र, (*śva-bhra*)
		बिभ्रति (*bibhrati*),
		भृतिः (*bhṛtiḥ*)

est	*sunt*
अस्ति (*asti*)	सन्ति (*santi*) (where dropping of the अ (*a*) is weak grade)
पपात (*pápāta*)	पप्तिम (*páptima*) (classical पेतिम *petima*)
नपात् (*nápāt*)	नप्ती (*naptī*) Vedic. *nepos*

जनस् (*jánas*)	जजान (*jajāna*)	जज्ञे (*jajñe*)
γένος (*gĕnŏs*)	γέγονα (*gĕgŏna*)	γι'γνομαι (*gi'gnŏmai*)
चत्वारः (*catvāraḥ*)	तुरीय (*turīya*)	(for कृतुरीय *kturīya*)

Add :—

एमि (*émi*)	इमः (*imáḥ*)
ददर्श (*dadárśa*)	ददृशुः (*dadṛśúḥ*)
बिभराणि (*bibhárāṇi*)	बिभृहि' (*bibhṛhi'*)

In the same category fall changes called संप्रसारण (*samprasāraṇa*). The Sanskrit grammarians were conscious of this vowel-gradation above spoken of. Some modern scholars therefore call this **Ablaut* simply संप्रसारण. (*Samprasāraṇa*).

*Ablaut = Regular vowel gradation. DR. SUNITI KUMAR CHATTERJI suggests 'अपश्रुति' (*apaśruti*) for ablaut in his *Indo-Aryan and Hindi*, 1942. Examples of Ablaut from English : *sing—sang—sung, song.* A vowel-change to indicate tense-change in strong verbs. Similarly, this law is seen operating in the for nation of plurals in English : *man, men mouse, mice ; goose, geese ; foot, feet ;* Also *money, mint ; book, beech ; doom, deem. Brother—Brethren* is interesting as it gives actually a double plural. There are two varieties of ablaut in Indo-European : (1) qualitative and (2) quantitative. The Sanskrit grammarians have only noticed the quantitative *ablaut* in गुण (*guṇa*), वृद्धि (*vṛddhi*) and संप्रसारण (*samprasāraṇa*). Ed.

य, व, र, (*ya, va, ra*) changed to इ, उ, ऋ (*i, u, ṛ*); यष्टवे, यज्ञ (*yáṣṭave, yajñá*) changed to इष्ट (*iṣṭá*); वक्तवे (*váktave*) changed to उक्त (*uktá*); ग्रभे (*grábhe*) changed to गृभे', गृहीत (*gṛbhé*) (*gṛhīta*); सुष्वाप (*suṣvāpa*) changed to सुषुप्वांस् (*suṣupvāṁs*); वष्टि (*vaṣṭi*) changed to उष्मसि (*uṣmási*); स्वप्नः (*svápnaḥ*) changed to Gr. Ὕπνος (*húpnŏs*) O. Sl. *sûnû*; वर्चस् (*várcas*) changed to उल्का (*ulká*).

Other examples of संप्रसारण (*saṁprasāraṇa*) under the influence of accent are

वक्षस् (*vákṣas*), उक्षा, उक्षति (*ukṣá, ukṣati*); अवस्रन् (*avasran*), उस्र, उषस् (*usrá, uṣás*); वरीयस्, वरिष्ठ (*várīyas, váriṣṭha*) उरु (*uṛum*); (सं) वत्सर (*saṁ-vatsará*) Gr. *Fέτές* (*fétos*), परुत्, (*parut*), πέρυσι (*pérusi*); स्वधा, स्वधित (*svadhā svadhitá*), सु-Cl. सुधा (*su*) (*sudhā*) राजिः, रजिष्ठ (*rājiḥ rajiṣṭha*), ऋज्, ऋञ्जति (*ṛjú, ṛuñjati*); प्रथति (*práthati*), पृथिवी', पृथु (*pṛthivī, pṛthú*) चत्वारः (*catvāraḥ*) चतुरः (*catúraḥ*); श्वन् (*śvan*); शुनः (*śunáḥ*).

WACKERNAGEL has put together quite a number of examples of gradation of vowels under the influence of accent.

(3) The गुण (*guṇa*) and वृद्धि (*vṛddhi*) phenomenon, according to which the same root or stem, either in accordance with its meaning or the kind of formation, shows now an इ, उ, ऋ, ऌ, (*i u, ṛ ḷ*) or य्, व्, र्, ल्, (*y, v, r, l*) now an ए, ओ, अर्, अल्, (*a, o, ar, al*) and now an ऐ, औ, आर्, आल्, (*ai, au, ār, āl*) was observed and properly understood by our old grammarians. The same was also acknowledged by philologists to belong to the primitive Indo-germanic language and was, together with संप्रसारण (*saṁprasāraṇa*), by them called *ablaut*. The change between गुण (*guṇa*) or वृद्धि (*vṛddhi*) and the simple or basic vowel depends almost exclusively upon accent. And, as a general rule, the syllable of the stem under accent shows

1. WACKERNAGEL, *Altindische Grammatik*, p. 64.

गुण (*guṇa*), the syllable before the accent however only shows the simple vowel,

एमि (*émi*), एषि (*éṣi*), एति (*éti*): इमः (*imáḥ*), इर्थ (*ithá*), यन्ति (*yánti*); आप्नोमि (*āpnómi*), आप्नोषि (*āpnóṣi*), आप्नोति (*āpnóti*); आप्नुम (*āpnumá*), आप्नुथ (*āpnuthá*), आप्नुवन्ति (*apnuvánti*); ददर्श (*dadárśa*), ददर्शिथ (*dadárśitha*), ददर्श (*dadárśa*): ददृशिम (*dadṛśimá*), ददृश (*dadṛśá*), ददृशुः (*dadṛśúḥ*); वर्धाय (*várdhāya*): वृधाय. (*vṛdhaya*); दिद्वेष (*didvéṣa*); दिद्विष (*didviṣá*).

A few exceptions, like the weak form with ऋ (*ṛ*) under accent, *e. g.* वृक (*vṛka*), can be explained as partly due to the transference of the vowel from related forms and partly to the shifting of the accent. The theories, that some function was expressed by the गुण (*guṇa*) of the basic vowel, or that the suffixes caused that change, are only interesting from the antiquarian's point of view.

(4) Phonetic change also takes place in a syllable of a word owing to the influence of another syllable.

In Lat. *quinque*, the first syllable owes its labio-velar to the influence of the last syllable. Sk. श्वश्रूः (*śvaśrūḥ*) owes its initial श् (*ś*) to the second one, as words like Lat. *socer*, O.H.G *swigar* show. The former is an example of the influence of a whole syllable upon another. But simple sounds affect other simple sounds, as in Gr. *ei*, which becomes *ee* = *ē*, *ou*, *oo* = *ō*. Vowels affect vowels, as in O.H.G. *gesti*, for Goth. *gasti*, where *i* has affected *a* and consonants as in Gr. σι (*si*) which comes from *ti*; in Gr. *te* (*te*) Indog. *qwe*; *o* palatalises the labio-velar in *quo* which becomes πο (*po*). Consonants also affect consonants, as in Gr. *omma* for οπμα (*opma*); Sk ऊर्णा, (*ūrṇā*), Lith. *vilna*, Goth. *wulla*, Ger. *wolle*. These are called *combinatory* changes.

(5) *Assimilation.*—We shall however speak only of changes represented by O.H.G. *gesti* fr. Goth. *gasti*, Pr. सिविण (*siviṇa*) through सुविण (*suviṇa*) from स्वप्न (*svapna*) and Lat.

quinque from *pinque*. These are called changes due to *assimilation*. This is of two kinds (*a*) either *progressive*, when an earlier sound or syllable affects a later one; *e. g.* स्तृणोति (*stṛṇoti*) where the previous ऋ (*ṛ*) has affected the original dental न (*na*) and changed it to cerebral ण (*ṇa*). This has been recognised by *Pāṇini and generalized in the सूत्र, रषाभ्यां नो णः समानपदे (*sūtra, raṣābhyām no ṇaḥ samānapade*) and by prakritists like JACOBI[1].

Pr. चक्क (*cakka*) (Mar. चाक *cāka*) from Sk. चक्र (*cakra*) shows progressive assimilation. वज्ज (*vajja*) from वज्र (*vajra*), चच्चर (*caccara*) from चत्वर (*catvara*), सवत्ती (*savattī*) (Mar. सवत) (*savata*) from सपत्नी (*sapatnī*), अत्ता (*attā*) (also अप्पा) (*appā*) from आत्मन् (*ātman*), मुक्क-मुक्त (*mukka-mukta*), वेरग्ग-वैराग्य (*veiragga-vairāgya*), अग्गी (*aggī*) (Mar. आग) (*āga*)-आग्नि (*agni*), तक्क (*takka*) (Mar. ताक) (*tāka*)-तक्र (*takra*), वग्घ (*vaggha*) (Mar. वाघ) (*vāgha*) from व्याघ्र (*vyāghra*) गब्भ (*gabha*) (Mar. गाभा, गाभण) (*gābhā gābhaṇa*) from गर्भ (*garbha*), show the great effect of this law in Prākrits; or,

(*b*) *regressive*, when a following sound or syllable affects a previous one and lends it its own character; *e. g.* It. *otto, Viitorio*, for Lat. *octo, Victorio, quinque* for *pinque*; Pr. कज्ज (*kajja*) (Mar. काज) (*kāja*) for Sk. कार्य (*kārya*) where the र (*ra*) assimilates itself to the य (*ya*), which is palatalised. Sk. श्वशुर (*śvāśura*) from original स्वशुर (*svaśura*), shown by Gr. ἑκυρός (*hekurós*), Lat. *socer*, Goth. *swaihra* etc., Sk. श्मश्रू (*śmaśrū*), Old Ir. *smech*. छिन्न (*chinna*), अन्न, (*anna*) from छिद् + न (*chid* + *na*) and अद् + न (*ad* + *na*) are other

*Pāṇini was born at Sālātura (modern Lahore) and educated at Takṣaśilā, both in the Udicya tract which 'was the well of Aryan, undefiled' by the Laukika form of Sanskrit or Bhāṣā. He gave the law to classical Sanskrit of the Aryan speech which controls thought and endeavour for over three thousand years. He flourished probably in the 5 th Century B. C. for he knew the Persians and the Greeks. Ed.

1. JACOBI, *Erzählungen in Māhārāṣṭrī* p. xxxi.

examples of regressive assimilation. Pr. सिविण (*sivina*) through सुविण (*suvina*) from स्वप्न (*svapna*); उच्छ (*uccha*) (Mar. ऊंस- इक्षु) (*ũsa*)-(*ikṣu*), सत्थ-सार्थ (*sattha-sārtha*).*

The explanation of the fact is not very difficult. Although a word or sentence is produced by a succession of articulatory movements, still, so far as the speaker is concerned, he has the idea of the whole in his consciousness the moment he begins a word or sentence. He has the apperception of the sound and its meaning together in a uniform simultaneous act. When, therefore, an assimilation takes place, the process is something like this. An individual sound-idea, which has some sort of superiority over another, gets into the place of that other, and thereby the articulatory movement which corresponds to the former, pushes itself into the place of the other.

A law of assimilation has been postulated for the Prākrits by BOLLENSEN, according to which मिअतिण्हिआ (*miatiṇhiā*) or मअतण्हिआ (*maataṇhiā*) would represent Sk. मृगतृष्णिका (*mṛgatṛṣṇikā*); *i. e.* if तृष्णा (*tṛṣṇā*) be changed in Pr. to तण्हा (*taṇhā*), the word मृग (*mṛga*) before it will have an अ (*a*) by assimilation, but if it be तिण्हा (*tiṇhā*), then मृग (*mṛga*) would be मिअ (*mia*). This, however, PISCHEL rightly points out, cannot be insisted upon, as the grammarians and the texts give now one form and now another. Thus, for instance, we have both मअंक (*maaṁka*), मिअंक (*miaṁka*) and a third मियंक (*miyaṁka*) for मृगांक (*mṛgāṁka*). We also have मग (*maga*) for मृग (*mṛga*), but मिअआ (*miaā*) for मृगया (*mṛgayā*). अण्ण (*aṇṇa*) for अन्य (*anya*) and कल्ल (*kalla*) for कल्य (*kalya*) are other examples.

(6) *Dissimilation* :— The opposite of this is dissimilation. Sometimes two similar sounds are instinctively avoided, by

*Examples from English are *God+sib=Gossip; ad+seacre=assize.* Ed.

displacement or change of one of them. It can be both progressive, and regressive like assimilation.

Our Prākrits abound in the second class of dissimilation. मउड (*mauḍa*), Sk. मुकुट (*mukuṭa*), गरुअ (*garua*) (*e. g.* गरवी गुजरात)-गुरुक (*garavī-gujarāta-guruka*), नेउर-नूपुर (*neura-nūpura*), पुरिस-पुरुष (*purisa-puruṣa*), नांगल (*nāṁgala*) Mar. नांगर-लांगल (*naṁgara-lāṁgala*); Gr. Θηλητηρ (*thīlītir*), for Θηρητηρ Lat. *celebrum* for *cerebrum*. Examples of the first, where a similar sound is lost are: वध्र (*vadhra*) Vedic, for व्रध्र (*vradhra*), Gr. φατρία (*phatría*) from φρατρία (*phratría*), नद्भ्यः (*nadbhyaḥ*) from नब्द्भ्यः (*nabdbhyaḥ*) dat. plu. of नपात् (*napāt*); तिष्ठति (*tiṣṭhati*), तस्थौ (*tasthau*) from स्था (*sthā*); चस्कन्द (*caskanda*) from स्कन्द् (*skanda*)– in fact all reduplicatives of conjuncts.*

It is interesting to note that the Latin shows in the reduplicative syllable the full conjunct; *e. g.* as against तिष्ठति (*tiṣṭhati*), तस्थौ (*tasthau*), Lat. has *spopondi* to *spondere*, *steti* to *stare*, *scicidi* to *scindo*. Yet it has not escaped the law of dissimilation. The same phenomenon, with a slight change, is seen in intensives in colloquial Marāṭhī, म-मरून (*ma-marūna*) to classical मरमरून (*maramarūna*), मा-मारून (*mā-mārūna*) to classical मारमारून (*māramāruna*). Of course forms like घे-घेऊन (*ghe-gheūna*), खा-खाऊन (*khā-khāūna*) which show the regular reduplication of the monosyllable, must have had influenced such formations as म-मरून (*ma-marūna*). Nothing need be said of contact of words in sentences or of stems and terminations, known as the सन्धि (*sandhi*) phenomenon. It is familiar to the students of Sanskrit. We find there some kind of assimilation हरि + इच्छा = हरीच्छा (*Hari* + *icchā* = *harīcchā*) or जगत् + जीर्णता = जगज्जीर्णता (*jagat* + *jīrṇatā* = *jagajjīrṇatā*) due to associative interference.

*Eng. *opposal, puzzle, poser*; *cinnamon* for original *cinnamom* and Mar. मेण *meṇa* for मोम (*moma*). Ed.

Before closing this branch of the subject, we have to deal with certain phenomena of sounds, without which this topic would be incomplete.

(7) *Prothesis* :—We find that in some languages certain vowels are developed before certain consonants. The Greek, for instance, has an *e* before words beginning with sounds like *r, n, m, w*; Sk. रुधिर (*rudhirá*), Lat. *ruber*, Ger. *roth*, Eng. *red*, O. Ir. *ruad*; but Gr. ἐρυθρός (*eruthrós*); Sk. रंज: (*rájaḥ*), Goth. *riquis*, Gr. ἔρεβος (*hérebos*); Sk. लघु (*laghu*), Lat. *levis*, but Gr. ἐλαχυς (*èlechus*); Sk. नृ (*nṛ*), Gr. ανήρ (*anér*); Germ. *melken*, Lat. *mulgeo*, but Gr. ἀμέλγω (*âmélgo*); Sk. नख (*nakha*), Gr. ὄνυχ (*ónuch*), नामन् (*nāman*), Gr. ὄνομα (*onomā*).

Our Pr. इत्थिया (*itthiyā*); इत्थी (*itthī*) from Sk. स्त्री (*strī*) is a good example. In the Panjab and U. P. people still say इस्त्री (*istrī*), इस्कूल (*iskūla*). In colloquial kuṇbi Marāṭhī we have अस्नान (*asnāna*) for स्नान (*snāna*), अस्तुरी (*asturī*) *for* स्त्री (*strī*). Probably a difficulty was felt in pronouncing the conjunct with an initial sibilant, and as a sort of balance a vowel was pre-pronounced. Mohommedans always say इस्कूल (*iskūla*), इस्टेशन (*isṭeśana*), इस्टांटर्ड (*isṭāṃṭarḍa*), इस्पीक (*ispīka*), for स्कूल (*skūla*) etc. The French *ecole* for Lat. *schola* shows the same thing. This phenomenon is called *prothesis*.

(8) *Anaptyxis* :—Another similar phenomenon is the insertion of a vowel between combination of sounds, which are difficult to pronounce. Gr. ἕβδομος (*hébdomos*) from old ἕβδμος (*hêbdmos*). English *elm* is actually pronounced *elem*. This is called स्वरभक्ति (*svarabhakti*) or *anaptyxis*. In some hymns of the *Ṛgveda*, इन्द्र (*Indra*) becomes trisyllabic, इंदर (*Indara*), दर्शत-दरशत, (*darśata-daraśata*). This is very common in colloquial language; Mar. परकार for प्रकार (*para-kāra* for *prakāra*), भरम for भ्रम (*bharama* for *bhrama*), इपर for विप्र (*ipara* for *vipra*), पृथिवी and पृथ्वी, (*pṛthivī* and *pṛthvī*)

सुवर् and स्वर् (*suvar and svar*), सुवर्ण and स्वर्ण (*suvarṇa* and *svarṇa*) are cases where both forms are current in the Sanskrit language. धरम for धर्म (*dharama* for *dharma*) is found in Mar. inscriptions of 13th and 16th centuries A. D. Pr. किलिन्त (*kilinta*), सिणिद्ध (*siṇiddha*) for Sk. क्लान्त (*klānta*), स्निग्ध (*snigdha*). A variety of the same phenomenon is seen in the insertion of a consonant between two consonants belonging to different places of articulation. This newcomer helps the tongue in passing from one place to another and is in fact a transitional sound; Gr. *ἀνδρος-ἀνήρ* (*ándros-ánēr*), Mr. तुम्बळ (*tumbaḷa*), Sk. तुमुल (*tumula*); Col. Mar. कम्बळ for कमल (*kambaḷa* for *kamala*); सुन्दर (*sundara*), Ved. Sk. सूनरी (*sūnarī*); Col. Mar. वान्दर, वानर (*vāndara vānara*); Mar. ताम्बडा for ताम्र, (*tāmbaḍā* for *tāmra*) हुम्बरी-तुम्बरी, (*humbarī-tumbarī*), कम्बर, (*kambara*) अंबळ, (*Ambaḷa*), तारांबळ, (*tārāmbaḷa*), उंबर, (*umbara*), हण्टलें, (*haṇṭalē*) for हणलें, (*haṇalē*), म्हण्टलें, (*mhaṇṭalē*) are other examples. आम्बा (*āmbā*) from आम्र (*āmra*), however belongs to progressive assimilation.

(9) *Syncope*:—Opposite of this is what is called *syncope*. The name is applied to loss of a vowel, the loss of a syllable being named *haplology*. Lat. *dexter* for *deksiteros*, जग्मुः (*jagmuḥ*), ज्मा (*jmā*), ग्मा (*gmā*) from गम् (*gam*), राज्ञा (*rājñā*) from राजन्+आ (*rājan+ā*) show syncope of अ (*a*). भूम्ना (*bhūmnā*), प्रेम्णा (*premṇā*) are other examples. अपप्तत् (*apaptat*) is a typical verbal form showing syncope of अ (*a*). Col. Mar. पल्डा (*palḍā*), वराल्डा (*varāḍā*). Sanskrit inflection and conjugation show many examples of dropping of vowels.

(10) *Haplology*:—*Haplology* is a name given by BLOOMFIELD to the phenomenon where of two similar syllables following each other, one is dropped. The condition for haplology[1] is that one sound, at any rate, in the two consecutive syllables must be common: *e. g. semimodius* gives *semiodius*;

1. BRUGMANN, *Kurze Vergleichende Grammatik*, p. 244.

Gr. ἀμφι-φορεύς (*amphi-phoreus*) gives ἀμφορεύς (*ámphoreús*) शेव-वृधः (*śeva-vṛdhaḥ*) gives शेवृधः (*śévṛdhaḥ*) जहीहि (*jahīhi*) gives जहि (*jahi*), imperative of हा (*hā*) to abandon; शष्प+पिञ्जरः (*śaṣpa+piñjaraḥ*) yields शष्पिञ्जरः (*śaṣpiñjaraḥ*); Col. Mar. गेल्तो (*gelto*) for गेलों-होतों (*gelō-hotō*); Mar. वीत (*vīta*) for वितस्ति (*vitasti*), गुराखी (*gurākhī*) = गुरें + राखी (*gurē + rākhī*); सुकें + केळें (*sukē + keḷē*) gives सुकेळें (*sukeḷē*).

(11) *Metathesis*:—Lastly *metathesis* plays a considerable part in phonetic change. This is when two sounds in a word change places. * It is transposition of sounds or letters in word. The word आप्त (*āpta*) from आत्मा (*ātmā*) through आत्पा (*ātpā*) is held by PISCHEL[1] to be an example of metathesis. Striking examples of this are our मरहट्ट (*marahaṭṭa*) (Pr. and classical too), Mar. मऱ्हाटें (*marhāṭē*) (often in ज्ञानेश्वरी (*Jñāneśvarī*) for महाराष्ट्र (*mahārāṣṭra*), वाणारसी (*vāṇārasī*) (the original of the Eng. word Benares) for वाराणसी (*vārāṇasī*); दीहर (*dīhara*), (Hindī देर) (*dera.*) from दीर्घ (*dīrgha*) through दीरह (*dīraha*); पाहाणओ (*pāhāṇao*) (Mr. वाहाण) (*vāhāṇa*), Sk. उपानहो (*upānaho*); Mar. हळूं, (*haḷū*), Sk. लघु (*laghu*); ललाट (*lalāṭa*) by dissimilation gives नलाट (*nalāṭa*), then by metathesis नटाल-नडाल-निडाल (*naṭāla-naḍāla-ndiāla*), seen in modern Mar. निढळ (*niḍhaḷa*) *e. g.* निढळाचा (*niḍhaḷācā*) घाम (*ghāma*); Col. Mar. फाटक (*phāṭaka*) for Col. Mar फाकट (*phākaṭa*); Col. Mar. पल्डा (*palḍā*), वराल्डा (*varāḷḍā*); चिकटणें (*cikaṭaṇē*), and चिटकणें (*ciṭakaṇē*), डोकसें (*ḍokasē*), and डोसकें (*dosakē*), टिकला (*ṭikalā*) for तिलक (*tilaka*), माहोतर (*māhotara*) for मुहूर्त (*muhūrta*). पछान (*pachāna*) in जानपछान (*jānapachāna*) through पच्चहिआण (*paccahiāṇa*) from Sk. प्रत्यभिज्ञान (*pratyabhijñāna*), नहाणें (*nahāṇē*) through ण्हा (*ṇhā*) from Sk. स्ना (*snā*); Col.

* It is called Spoonerism, when occurring in a phrase or sentence: *boiled icicle* for *oiled bicycle* is given by Oxford Dictionary. *Many thinkle peep so* for *many people think so*; and *cheautiful birch* for *beautiful church*. "You are *hissing my mystery* lectures" for "*missing my history* lectures!" Ed,

1. *Grammatik der Prakrit Sprachen*, p. 192.

Hindī नखलौ (*nakhalau*) for लखनौ (*lakhanau*), समंगनेर (*samaṁganera*) for संगमनेर (*saṁgamanera*), Mar. तहान (*tahāna*) from Pr. तण्हा (*taṇhā*), which again is due to metathesis from तृष्णा (*tṛṣṇā*).

(12) *Change conditioned by rhythm and quantity*:—There are two minor classes of conditional changes. The change for rhythm; *e. g.* the prosodial lengthening of a final अ (*a*) seen in Vedic विदा मघवन् विदा (*vidā maghavan vidā*); and change conditioned by quantity. For example नीच-नित्य (*nīca-nitya*) through निच्च (*nicca*); the lengthening of the first syllable is due to the preservation of quantity. The quantity-law, as it is called, has exercised a powerful effect over the phonology of the Prākrit languages. पक्क (*pakva*) through पिक्क (*pikka*) gives पीक (*pīka*); पृष्ठ-पट्ठ-पाठ (*pṛṣṭha-paṭṭha-pāṭha*), ऋक्ष-रिच्छ-रीस (*ṛkṣa-richha-rīsa*); वितस्ति-वीत (*vitasti-vīta*) is a fine example of haplology and quantity-law combined. वर्तिका-वत्तिआ-वात (*vartikā-vattiā-vāta*) is a further example.

Some of these phonetic phenomena were recognised by Sanskrit grammarians much older than Pāṇini. Yāska, for instance, who may have belonged to the 7th century B. C., points out some of these in the second chapter of his निरुक्त (*Nirukta*) thus: (*a*) अथाप्यस्तेर्निवृत्तिस्थानेषु आदिलोपो भवति स्तः सन्तीति (*athāpyasternivṛttisthāneṣu ādilopo bhavati staḥ santīti*); this is recognition of accent as a factor in phonetic change; (*b*) अथाप्यन्तलोपो भवति गत्वा गतम् इति (*athāpyantalopo bhavati gatvā gatam iti*); this is combinatory change; (*c*) अथाप्युपधालोपो भवति जग्मतुर्जग्मुरिति; (*athāpyupadhālopo bhavati jagmaturjagmuriti*); this is *syncope* in modern language; (*d*) अथाप्यादिविपर्ययो भवति ज्योतिः घनः (*athāpyādiviparyayo bhavati jyotiḥ ghanaḥ*) etc; this is partly *assimilation*, partly *dissimilation*; (*e*) अथाप्याद्यन्तविपर्ययो भवति स्तोका रज्जुः सिकता इति (*athāpyādyanta-viparyayo bhavati stokā rajjuḥ sikatā iti*); this is *metathesis*; (*f*) अथापि वर्णोपजनः आस्थत् भरूजा इति (*athāpi varṇopajanaḥ āsthat bharūjā iti*); this is *anaptyxis*.

15. PHONETIC LAWS NOT ABSOLUTE LIKE NATURAL LAWS:—If we explain sound-changes in any language historically, of course comparing various stages in its life with one another, we shall arrive at thousands of laws. There is, for instance, in Sanskrit what is called the *palatal law* with which we shall deal later. Then there is the law of quantity in the Prākrits whereby, in order to keep the quantity of the syllable inviolate, the preceding vowel is lengthened when the Sk. conjunct is simplified. But we must always remember, that these are not laws in the sense of invariable principles at all times, like scientific formulæ. When hydrogen and oxygen are chemically mixed together in certain fixed proportion, they will always produce water. Such an inexorable inevitability and strict consequence is never claimed for the phonetic laws. So that the principle so emphatically laid down in the eighties of the last century by LESKIEN, that phonetic laws brook no exception, need not be misunderstood. The curious fact however is, that whatever seems to break the recognised phonetic laws was sought to be accounted for. If, for instance, the form ὀκτώ (*hoktó* pronounce *hocto*) in certain Gr. dialects seemed to militate against the accepted correspondence of अष्टौ (*aṣṭhaú*) or अष्टा (*aṣṭhā*), Lat. *octo* Goth. *ahtau, Ger. acht,* the reason was at once demanded. It was found out that ὀκτώ (*hoktó*) got its aspirate on the analogy of ἑπτά (*heptá*), with which the former was closely associated in the mind of the speaker. *Analogy* was thus accepted as a great force in phonology. We have seen how words like Goth. *fadar*, which appeared to go against GRIMM'S law, attracted attention and were satisfactorily explained. But nobody cared to explain why at all the first sound shifting took place. Thus while causes of apparent exceptions were eagerly sought for and accepted, the general rules were accounted for by general causes of phonetic change.

a. RECAPITULATION OF CAUSES OF PHONETIC CHANGE:— Of course the causes for phonetic change in general, of which we have spoken in a previous section, are always adduced, when phonetic change as such is in question. The very give and take of daily intercourse, *Verkehr* or *Usus* of PAUL, wherein no speech material can be expected to remain intact, the basis of articulation, *i. e.* peculiar position and structure of speech organs, of a given community, which accounts physiologically for certain changes, the motory sensations which in the nature of things cannot be identical even in the case of two individuals of the same speech-community, all these internal causes, and extraneous circumstances like social, religious, political upheaval, conquest, migration, contact due to commercial and other intercourse, language mixture etc. account in a general way for phonetic change in the abstract.

But some philologists are not satisfied with this general explanation. OERTEL[1] says, almost in a complaining tone, "But how about the phonetic law itself? Is the demand for a causal explanation extended to it? By no means. The phonetic law rests its claim to recognition not upon a causal explanation but upon its relative universality. That is to say, because a certain sound change can be observed in a large number of cases, it is elevated to the rank of phonetic law. The question why such a change took place is not asked. It is only in the case of exceptions that we meet the demand for a causal explanation." After explaining how BRUGMANN and others distinguished between mechanical phonetic change due to association *i. e.* analogy formations, which changes are explained by others by the words *physiological* and *psychological* changes, he draws attention to the twofold result of the creation of this term *phonetic law.*

1. *Lectures on the Study of Language* p. 260.

The wholesome result of this was, that it enforced strict scientific methods of phonological investigations.' But the deplorable result, according to him, was, in the words of the celebrated philosopher Eucken quoted by him, that 'A liberal use of the term *law* has made very complicated problems appear as if they were simple and stood in no need of further analysis'. He states a double problem, the investigation of the degree of uniformity which sound-changes exhibit; and the reason for such uniformity. He comments upon the usual reply, as he calls it, to the latter problem, *viz.*, simultaneous change in the articulation of a large number of individuals tending in the same direction. He says it rests upon three fundamental errors, (1) regarding linguistic facts as individual; instead of as social production, (2) seeing in social inter-communication a conservative factor only, while in fact social contact and the imitation which it involves are at the bottom of the changes as well, (3) failing to distinguish between the origin of a change and its spread.

The only constructive solution which he offers of the second problem stated above, is the immense importance that he arrogates to social imitation. This in fact was never denied by eminent philologists, like WHITNEY, PAUL and BRUGMANN, who have given imitation its due. Again it is as general as the causes of phonetic change suggested by others. Once for example, while trying to find the cause of the German sound-shifting, OERTEL has tried to put forth specific causes. While considering individual causes for phonetic change and dismissing many as unsatisfactory *e.g.* lethargy, or the uselessness theory, he allows some merit to speed of utterance as a cause of change. 'It is' he says[1] 'also the immediate reason why words which are often used, undergo phonetic changes which do not affect words, which are more rarely used and therefore more slowly pronounced.' By

1. *op. cit.* p. 209.

the bye, we might not agree with the *therefore* of OERTEL. For, frequency of use of a word already learned and stored in memory cannot affect perceptibly the time required for its pronunciation. He is right when he says, that we have no grounds to believe that in many languages the rate of speed increased as time went on. He almost apologetically puts forward as likely 'another[1] cause', which might be immediately responsible for this change, namely "an increase in the force of the expired current." It may be a good cause, when we assume that it was a fact. But the enternal *why* still remains. Why should the Germanic tribes only find it necessary to increase the force of the expired current? Was it climate or the country or the general surroundings that made them do so? Or was it some physical incapacity that made them do so, just as the South American Abipones were said to have no labials, because they were supposed not to be able to close their lips?

16. IMPORTANCE OF ASSOCIATION:—The words that we hear others speak and ourselves utter are not preserved in our mind in an isolated[2] form; but as soon as they are heard, they attract each other in the mind and form several groups. These latter enter into larger ones. Nor should it be thought that these groups themselves are not interrelated. They cross and recross one another. A network of associations is formed which makes it possible for the individual to remember most of what he hears and to be able to recall all that is learned and thereby also to help in making new words and forms.

This association of the ideas or impressions of words in the brain, is the basis of all *analogy* formation *i. e.* the second important kind of linguistic change.

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1. *op. cit.* p. 213.
2. PAUL, *Prinipien der Sprachgeschichte* p. 106.

Before psychology was recognised as an experimental science, the truths of which could be tested, any unaccountable change in language was treated as irregular and inexplicable. If a certain form or group of forms appeared to militate against a recognised phonetic law, it was simply set aside as an exception. So that as the regular science of language progressed, the number of exceptions, unaccoutable as they were thought to be, seemed to grow, threatening to upset the small claim the study of language had established for itself to the title of *science*. But about the eighties of the last century, a band of young philologists arose–BRUGMANN, OSTHOFF and others–who boldly came forward offering an explanation of the so called exceptions. They proved conclusively the claim of *analogy* based upon association as a principle to be reckoned with in the phenomenon of linguistic growth. It was pardonable, that in the enthusiasm of this discovery, some of them went rather too far, and wanted to set down any divergence from the recognised rule as due to analogy. But as they sobered down, the fact remained, that many disturbances observed in the phonology, morphology, syntax and semantics of a language, were due to the working of this psychological principle of *analogy*. It was also for some time called *false analogy*. Since association of speech material into various groups, caused by similarity of sound or sense or both, is the basis of all analogical change, it will be worth while to know this aspect of language better. Because analogical disturbance, caused by one word or phrase in another, or by a form of one word in another form of the same word, is "impossible without some sort of associative[1] contact." The converse, however, it should be remembered, is not always true.

'Association', as OERTEL describes it, 'in the broadest sense of the term, is the recall to consciousness by some conscious element, of one or more psychical elements which

1. OERTEL, *Lectures on the Study of Language* p. 150.

have passed from consciousness'. Association is immediate or mediate. In linguistics we have chiefly to do with immediate association. This latter is divided into association by sound and association by sense. The first is the basis of analogical disturbances in phonology, morphology and syntax; the second of disturbances in the semantics of a language. OERTEL assumes a third group of functional associations, because certain analogical disturbances cannot properly be brought under the first two. The *s*, for instance, that certain adverbs like *sometimes* have taken on the analogy of noun adverbs like *always, lengthways* (wise), *sideways*, is not due to the association of sound or sense of these words, but only to the association by function *viz.* that they are all adverbs.

Analogical change does not touch the pronunciation of a *language as a whole*, as phonetic change does; it chiefly affects formation of words, inflection, syntax and meaning of words or group of words. We shall speak of the last when we come to *semantic* change.

Note that we advisedly say *language as a whole*, because there are stray phonetic changes due to analogy as in Gr. ἔπεται (*épetai*) which ought to be ἕτεται ; (*étetai*) but the π (*p*) is there on the analogy of ἕπομαι, (*épomai*) where π (*p*) is regular. Then वाचौ (*vāchau*) and वाचः (*vāchaḥ*) dual and plural, are irregular, because we expect वाकौ (*vākau*), वाकः (*vākaḥ*) ; but the former are formed on the analogy of वाचम् (*vācam*) where च (*ca*) is legitimate.

(*1*) *Analogical change in the formation of words:*— '*Sometimes*' quoted above is an example. The *s* of adverbs like *always* was felt to be a formantic element and was isolated from it to be used also in the case of words like *sometimes* which clearly are adverbs.

The same is to be said with regard to ऋतस्पति (*ṛtaspati*) and रथस्पति (*rathaspati*) which take the स् (*s*) on the analogy

of बृहस्पति (*bṛhaspati*), जास्पति (*jāspati*), ग्नास्पति (*gnāspati*), where it is legitimate as the gen. ending of these words that have entered into a compound. This was, however, looked upon as a distinct formantic element that could be isolated, and thus transferred to words like रथ (*ratha*) and ऋत (*ṛta*) where it was not legitimate.

The same is to be said of एकादश (*ekādaśa*), where the अ (*a*) following क (*ka*) becomes long on the analogy of द्वादश (*dvādaśa*), where the long आ (*ā*) being the dual is legitimate. But that sense was lost, and it was also transferred to the form एकादश (*ekādaśa*). The Gr. ὁκτακις (*hoktákis*) on the analogy of ἑπτακις (*heptákis*) tells the same story. The latter two examples are not those of functional association, but of associaton by contact; एकादश (*ekādaśa*) and द्वादश (*dvādaśa*) ἑπτα (*heptá*) and ὁκτώ (*hoktó*) being closely associated in the speaker's mind. The same is observable when a child, asked to repeat simple arithmetical tables says तेवन (*tevana*), चोवन (*covana*) instead of त्रेपन (*trepana*), चोपन (*copana*) on the analogy of एकावन (*ekāvana*), बावन (*bāvana*). The child feels from एकावन (*ekāvana*) and बावन (*bāvana*), that वन (*vana*) the second part, is the element repeated and thus adds it to subsequent formations. Another change, or rather mistake, which we notice, is the confusion of the two decades from एकावन (*ekāvana*) to अट्ठावन (*aṭṭhāvana*) and from एक्याण्णव (*ekyāṇṇava*) to अट्ठाण्णव (*aṭṭhyāṇṇava*), whereby the child unconsciously begins to say पञ्चाण्णव (*pañcāṇṇava*), etc. in place of पञ्चावन (*pañcāvana*). This is due to the disturbing influence of association, here of course by sound, helped by metathesis. Another interesting example is the compound अग्नामरुतौ (*agnāmarutau*); it is irregular because we expect अग्निमरुतौ (*agnimarutau*) or at best अग्नीमरुतौ (*agnīmarutau*) with the lengthening of the इ (*i*). It is due to the analogical disturbance caused by formations like इन्द्रामरुतौ (*indrāmarutau*) which probably also is due to इन्द्राग्नी (*indrāgnī*) where long आ (*ā*)

is legitimate.) *e. g.* द्यावापृथिवी (*dyāvāpṛthivī*). The word पाश्चिमात्य (*pāścimātya*), which is becoming classical in Marāṭhī instead of the regular पाश्चात्य (*pāścātya*), is due to the association of दाक्षिणात्य (*dākṣiṇātya*).

(2) *Analogical disturbance in inflection and conjunction*:—This is a very vast field for analogical disturbance; because not only do forms of one word influence other forms of the same word, but forms of other words also influence the forms of different words.

(*a*) The instrumental, dative, genitive, and locative forms of feminine nouns in आ (*ā*) are formed on the analogy of those in ई (*ī*). Thus देव्या (*devyā*), देव्यै (*devyai*), देव्याः (*devyāḥ*), देव्याम् (*devyām*), are legitimately formed by the terminations आ (*ā*), ऐ (*ai*), आस् (*ās*) and आम् (*ām*). But प्रियया (*priyayā*), प्रियायै (*priyāyai*), प्रियायाः (*priyāyāḥ*) and प्रियायाम् (*priyāyām*) are not. Because the terminations being the same, we would expect forms like प्रिया (*priyā*), प्रिये (*priye*), प्रियाः (*priyāḥ*), प्रियाम् (*priyām*). The Vedic language has kept the original instr. in आ (*ā*) *e. g.* दक्षिणा (*dakṣiṇā*). गुहा (*guhā*) but it was probably felt that यै (*yai*), याः (*yāḥ*), याम् (*yām*) were terminations and hence forms were made like प्रियायै (*priyāyai*), प्रियायाः (*priyāyāḥ*) etc. These forms drove out the old regular ones, with the exception in some cases of the instr. sing. *e. g.* गुहा[1] (*guhā*) where the old instr. is looked upon as an adverb; also दक्षिणा याति (*dakṣiṇā yāti*). This was later looked upon as the crude form without termination used for sing. and on its analogy instrumentals were formed from इ (*i*) ending nouns without termination; *e. g.* सुनीती[2] (*sunītī*) for सुनीत्या (*sunītyā*), प्रणीती[3] (*praṇītī*) for प्रणीत्या (*praṇītyā*), अचित्ती[4] (*acittī*) for अचित्त्या (*acittyā*).

1. *Ṛg.* II 4, 9.
2. *Ṛg.* VI 45, 1.
3. *Ṛg.* III 51, 1.
4. *Ṛg.* IV 54, 3.

(*b*) The nominative and accusative plurals of neut. nouns in अ (*a*) appear to be formed on the analogy of nouns in अन् (*an*). Thus कर्माणि (*karmāṇi*), सद्मानि (*sadmāni*) are legitimate but प्रियाणि (*priyāṇi*), दिनानि (*dināni*) are not. They are formed on the analogy of those of the former. In fact the nom., acc. pl. forms of all neuter nouns are formed on the analogy of those ending in अन् (*an*). Thus analogy appears as a leveller, a force that makes for uniformity, just as phonetic change makes for difference and diversity.

(*c*) Here we find what is called proportion in analogy; for we can put in the form of proportion what we have said just above.

देवी : प्रिया : (*devī* : *priyā*) : : देव्यै : प्रियायै (*devyai* : *priyāyai*)

सद्म : प्रिय (*sadma* : *priya*) : : सद्मानि : प्रियाणि (*sadmāni* : *priyāṇi*)

(*d*) The same is abundantly found in conjugation. Roots with a prosodially long अ (*a*) like अञ्ज् (*añj*), अर्च् (*arc*), अर्ध् (*ardh*) (ऋध्) (*ṛdh*) form perfect like आनञ्जे (*ānañje*), आनर्च (*ānarca*), आनर्ध (*ānardha*). On that analogy roots without long vowel like ऋच् (*rc*), अश् (*as*) etc. reduplicate in the same way, *i. e.* by lengthening the अ (*a*) and infixing a न (*na*); आनृचुः (*ānṛcuḥ*), आनशे (*ānaśe*).

अञ्ज् : अश् (*añj*): (*aś*) : : आनञ्जे : आनशे (*ānañje*): (*ānaśe*).

(*e*) The Vedic word नपात् (*napāt*) is a peculiar example where the old regular phonetic form and the new change brought on by analogy are still found side by side.

नपात् (*napāt*), नपातम् (*napātam*) but also नप्त्रा (*naptrā*), नप्त्रे (*naptre*), नप्तः (*naptaḥ*) in Veda itself; (तनूनपात्) (*tanūnapāt*), (तनूनपातम्) (*tanūnapātam*). The latter is an analogy formation. Because नपात् (*napāt*) is a word indicating family relationship, words of which class show the suffix तृ (*tṛ*) तर (*tara*), तार (*tūra*) (τρ, *tr*, τερ, *ter*, τορ, *tor*), on the analogy

of such, नपात् (*napāt*) was given a second form नप्तृ (*naptṛ*), like पितृ (*pitṛ*), (which is current in classical Sanskrit), the inflections of which run side by side with those of नपात् (*napāt*).

नपातम् (*napātam*), नद्भिः (*nadbhiḥ*) (from original नप्तृभिः) (*nabdbhiḥ*), नप्तारम् (*naptāram*) etc.

The same is the case with the oblique cases of पति (*pati*) and सखि (*sakhi*). पत्ये (*patye*), पत्युः (*patyuḥ*), सख्ये (*sakhye*), सख्युः (*sakhyuḥ*) are formed on the analogy of पित्रे (*pitre*), पितुः (*pituḥ*).

cf. the proportion पितृ : पति (*pitṛ* : : *pati*) : : पित्रे : पत्ये (*pitre* : *patye*) : : पितुः पत्युः (*pituḥ* : *patyuḥ*).

This is partly analogy based on association by sense.

The instr. sing. of nouns in अ (*a*) is formed after pronouns, रामेण (*rāmeṇa*) on the analogy of तेन (*teṇa*), अनेन (*aneṇa*). Regularly it ought to be formed by adding आ (*ā*) as in राज्ञा (*rājñā*).

(3) We come now to the third class of changes due to associative interference. This is also sometimes called *contamination*. Two phrases or sentences representing the same idea but in slightly different form, are apt to be so confused that they interchange parts with each other. There must, however, be some pivot common to both, round which the two parts of both the phrases appear to turn. OERTEL has quoted several German examples, put together with so much care and effort by the German scholars MERINGER and MEYER. He has quoted only one English example, *e. g. Living in what to the Chinese is regarded as wealth.* This is a fusion of the phrases :—

Living in what by the Chinese is regarded as wealth, and *living in what to the Chinese seems wealth.*
अरे, तूं हें मनावर ठेवशील (*are, tū hē manāvara ṭhevaśīla*) of an enraged missionary, is the fusion of तूं हें मनांत ठेवशील (*tū hē*

manāta ṭhevaśīla) and तूं हें मनावर घेशील (*tū hē manāvara gheśīla*). मला तें काम होत नाहीं (*malā tē kāma hota nāhī*) is again a good example of the fusion or contamination of:
मला तें काम करवत नाहीं (*malā tē kāma karavata nāhī*) and माझ्यानें तें काम होत नाहीं (*mājhyānē tē kāma hota nāhī*).
तो जावेसें ह्मणतो (*to jāvesē mhaṇato*) is a contamination of the two good sentences त्याला जावेसें वाटतें (*tyālā javesē vāṭatē*) and तो जाऊं ह्मणतो (*to jāū mhaṇato*).
Even मला तें काम करवतें (*malā tē kāma karavatē*) which is good classical Marāṭhī arising from a fusion of

मला तें काम करायचें आहे (*malā tē kāma karāyacē āhe*) and माझ्यानें तें काम करवतें (*mājhyānē tē kāma karavatē*). This contamination is inexplicable without a close association of the sentences in the speaker's mind.

The following from Moropant[1] is also a good example: पाहूनि तत्कलत्रें स्मरलें मुनिवच मनांत सत्वर तें (*pāhūni tatkalatrē smaralē munivaca manāta satvara tē*): which is a fusion of तत्कलत्राला स्मरलें (*tatkalatrālā smaralē*) and तत्कलत्रें आठवलें (*tatkalatrē āṭhavalē*).

17. SEMANTICS:—The class of change we are to treat now is *semantic change*, or change in the meaning of words. This part of the science of language received but scanty attention in the early days of our science and perhaps for good reason. The phonetic side of language attracted most attention, because the material it offered was copious; it was also more interesting. Such was not the case with semantics. It was not possible to say what meaning a particular word or words carried in prehistoric or even in historic times; and the connection between the old meaning, whatever it was, and the current one, it was not possible correctly to establish. Students of the Veda can testify to the correctness of this remark. Not only is there great difference of opinion regarding the

1. *Āryāthīrata*, vanaparva, 13.48

meaning of words like वयुन (*vayuna*), वेदस् (*vedas*) but there are also words the sense of which is not yet possible to determine., *e. g.* नद (*nada*) and लोध (*lodha*).

Yet the task of reducing this side of language to an intelligent branch of study was not hopeless and PAUL in his *Prinzipien* has devoted one whole chapter to it. BREAL, the French scholar, made this his special subject, wrote a monograph on it and afterwards published it in book-form. This book is available in the English translation of CUST.

Intellectual laws of language:—In the first part of the book, BREAL lays down certain laws which he calls intellectual laws of language. They are, (1) the law of specialization, (2) the law of differenciation and lastly (3) the law of irradication

(1) As example of the law of specialization, he takes the comparative and superlative degrees.

In the old languages, the comparative could be marked by the suffixes *ro*, Sk. उपरः (*uparaḥ*), Lat. *superus*; Sk. अधरः (*adharaḥ*), Lat. *inferus*; *tero*, Sk. अन्तरः (*antaraḥ*), Lat. *interus*; *ior*, Sk. वरीयस् (*varīyas*); Lat. *purior*; the superlative by *mo*, Sk. अधम (*adhama*), उपम (*upama*), Lat. *infimus*; *temo*, Sk. अन्तिमः, (*antimaḥ*), Lat. *intimus*; *issimo*, (Sk. (नेदिष्ठ) (*nediṣṭha*), Lat. *dulcissimus*.

But the old languages themselves have tried to generalise one set of termination as against another, *e. g.* Sk. ईयस् (*iyas*), इष्ठ (*iṣṭha*); Lat. *ior*, *issimus*. This is the first step towards simplicity.

But the later languages, French, German, Marāṭhī, for instance, while still keeping some comparatives in the old manner, have lost this dead mechanism. "Not", as BREAL rightly says, "in consequence of phonetic law." The law that operates here is, according to him, the law of *specialization*.

One single word assumes the functions of all these comparatives and superlatives. In French it is *plus*, in English *more*, German *mehr*, Marāṭhī अधिक (*adhika*). It must be noted that this specialized word is, in many cases, itself a comparative. To quote BREAL, "Among all words of a certain kind distinguished by a certain grammatical imprint, there is always one which is little by little drawn apart from its fellows. It becomes the pre-eminent exponent of the grammatical conception of which it bears the stamp. But at the same time, it loses its individual value, and is no more than a grammatical instrument, one of the wheels of the phrase."

The substitution of prepositions for the ancient declensions is another example, *e. g.* मजपेक्षां (*majapekṣā̃*) for Sk. मत् (*mat*) or मत्तः (*mattaḥ*), मजकरितां (*majakaritā̃*) for Sk. मह्यम् (*mahyam*). The termination of the preterite, *ed*, which was originally only a preterite form of the verb *do e. g. dide, hunger-dide, hungerde*, is specialized as a termination of the preterite. असें (*asē*), असस (*asasa*), असें (*asē*), themselves forms of the present historically used, of असू (*as*), are specialized to signify habitual past and used with pres. part. of roots, *e. g.* मी करीत असें (*mī karīta asē*).

(2) Differentiation is defined as the 'international ordered process, by which words apparently synonymous, have nevertheless taken different meaning' and can no longer be used indiscriminately.

Take, for instance, the words माता (*mātā̃*) and आई (*āī*), both meaning originally *mother*. The latter word is borrowed from the Dravidian languages. The word आई (*āī*) is the more homely, affectionate name for mother, while माता (*mātā*) is meant to give expression to awe and reverence. Take the words कार्य (*kārya*), कज्जा (*kajjā*) and काज (*kāja*) the legitimate Prākrit-Marāṭhī descendents of Sk. कार्य (*kārya*). But when

the word कार्य (*kārya*) itself was borrowed from Sk., they were no longer looked upon as mere synonyms ; but कार्य (*kārya*) came to mean *ceremonial* and कज्जा (*kajjā*), a legal *cause*. The same process is observable in the French *chose*—a thing and *cause*—reason, legal affair.

Again, for instance, मनस् (*manas*), मनुष् (*manuṣ*), मति (*mati*), मनन (*manana*), मन्यु (*manyu*), all belong to root मन् (*man*) *to think*. In the last the *feeling* aspect is emphasized, the first three relating to *thought*. Even amongst them, there is differentiation as मनस् (*manas*) *mind*, मति (*mati*) *thought*, मनन (*manana*) *constant thought, deep concentration*. This last form is a transition to मन्यु (*manyu*). हृदय (*hṛdaya*) a तत्सम (*tatsama*), and हिया (*hiyā*), a तद्भव (*tadbhava*) are also good examples. The latter, which in the *Jñāneśvarī* itself is used in its original sense of *heart*, came later to be used in the sense of *courage* ; for *heart* the Sk. हृदय (*hṛdaya*) was borrowed. The same is the story of पुस्तक (*pustaka*) and पोथी (*pōthī*), मार्ग (*mārga*) and माग (*māga*) which latter means *trace* or *track*, *e. g.* of a thief, स्थान (*sthāna*) and ठाण (*ṭhāṇa*), स्नान (*snāna*) and नहाणें (*nahāṇē*) which in its Pr. from ण्हाण (*ṇhāṇa*) meant *bath* only, but now it is used in a specialized sense ; वेणा (*veṇā*) from वेदना (*vedanā*) through Pr. वेअणा (*veaṇā*) and the तत्सम वेदना (*tatsama vedanā*) itself are good examples.

(3) The third phenomenon is that termed irradication. It covers quite a series of facts.

Take for instance the Sk. verbs in च्छ (*ccha*), called *inchoatives*, because they denote the beginning of an action or an action that comes about gradually, *e.g.* गच्छति (*gacchati*). Here the termination is used in its proper function. But in verbs like ऋच्छति (*ṛcchati*), यच्छति (*yacchati*), पृच्छति (*pṛcchati*) it does not have that sense at all. The suffix is isolated or irradicated from its legitimate roots and applied to others.

where it was originally out of place. The Latin *maturesco* is all right, because it denotes an action or process that gradually takes place. But in *nosco*[1]–I know, *pasco*–I nourish, it loses its original meaning.

After dealing with some other principles of language, namely *survival of inflections, false perception,* which leads to a further principle *analogy, new acquisition* and *dropping* of useless forms, BREAL comes in the second part of the book to the subject proper of his essay *i. e meaning of words.*

Before coming to the various tendencies seen at work wherever words have changed their meanings, we shall advert to one or two more general points which, though not very immediately connected with *change of meaning,* are better in place here than any where else.

They are (1) the disappearance of old words for certain ideas and (2) the appearance of new words. Words disappear because the ideas of which they are symbols also disappear; sometimes they disappear because the ideas they represent find new symbols. For a time, the disappearing and the new symbol must live side by side, otherwise the new symbol would be unintelligible and would die out.

(1) Examples of disappearing words: Hundreds of Sanskrit words, which denote sacerdotal objects and ideas, have disappeared from the descendants of Sanskrit, because those objects and ideas dropped out in later ages. वेदी (*vedī*), दर्वी (*darvī*), आसंदी (*āsaṁdī*), होता (*hotā*) पुरोडाश (*puroḍāśa*) and a host of such words have died out without leaving any traces. Loss of words is always connected with great upheavals in civilization, migrations of peoples and such other important events. The loss of the whole heathen terminology in the Slavonic and German languages after conversion of those people to Christianity is a good example.

1. For other examples see BREAL, *Semantics* p. 42.

(2) To revolution, to reformation, to geographical discoveries, to scientific invention so many words owe their birth that it is in fact impossible to count them. Commonwealth, representation, franchise and other socio-political terms are new, although of course coined out of old material. Contact of languages, either as neighbouring ones or as those of the conquerors and the conquered, is responsible for a host of new words in any language. *e. g.* If we read letters of the time of Shivāji or the Peshwās, we can not help stumbling against five words of Persian or Arabic extraction, amongst any ten words. Words like बंदा (*bandā*), गुलाम (*gulāma*), तबियत (*tabiyata*), बंदोबस्त (*bandobasta*), बिगर (*bigar*), बिन् (*bin*), बेशरम (*beśarama*), बरदास्त (*baradāsta*), किराया (*kirāyā*), शुरु (*śuru*), इलाज (*ilāja*), ऐना (*ainā*), हवालदिल (*havāladila*), पागल (*pāgala*), वास्तपूस्त (*vāstapūsta*), कलमदान (*kalamadāna*), अत्तरदाणी (*attaradāṇī*), गुलाब (*gulāba*), स्वारी (*svārī*), बादशाहा (*bādaśāhā*), तख्त (*takhta*), वज्जीर (*vajhīra*), पेशवा (*peśavā*), रवाना (*ravānā*), have now become so familiar to us that we inflect them as if they were good Marāṭhī words ; they have now come to stay with us. कॉलेज (*kŏleja*), मार्कीट (*mārkīṭa*), ठेसन (*ṭhesana*), (for स्टेशन, *steśana*), कुली (*kūlī*)[1], टेम (*ṭema*), मास्तर (*māstara*), बूट, (*būṭa*) रैन (*raina*), वार्निश (*vārnisa*), are now known even to coolies. In words like पोष्ट (*poṣṭa*), हापिस (*hāpīsa*), तिकीट (*tikīṭa*), ष्टाम्प (*ṣṭāmpa*), इस्पितळ (*ispitaḷa*), we already see the tendency to naturalize them by making them conform to native phonology; other examples—रपोट (*rapoṭa*), मोटार (*moṭāra*), इष्टिक (*iṣṭika*), or इष्टक (*iṣṭaka*). New words to represent foreign ideas are also formed by drawing on the old material.

We shall now deal with several tendencies observable in *semantics*. It is of course possible to supplement them. *Restriction* and *expansion* of meaning :—We often see that words originally intended to carry a certain meaning and to

(1) Eng. *coolie* is a loan word from H. *quli* O.E.D. Ed.

express a certain idea are either (*a*) restrained *e. g.* सांई (*sāī*) a religious mendicant, originally meant *lord,* शेज (*śeja*) *straw-bed* for a horse, originally meant *bed* generally or (*b*) expanded* *e. g.* गोसावी (*gosāvī*) which originally meant only *rich in cows,* means in modern Marāṭhī *lord,* शहर (*śahara*) to a rustic means only the particular town near his village. One can hear farmers and lower caste people saying चाहारी (*cāharī*) (शहरी) गेल्तो (*śaharī gelto*) when only they mean संगमनेरास गेलों होतों (*sāṁgamanerāsa gelō hotō*) or (*c*) transfer their meaning to other words.

Pejorative tendency:—BREAL speaks of the *pejorative* tendency, whereby whatever is disagreeable or repulsive is veiled or disguised. We find, for instance, in some of the native states people speaking of बादशहाके दुष्मन्की तबीयत अच्छी है (*bādāśahke duṣmankī tabīyata acchī hai*), when what they really mean is बादशाहाकी तबीयत बीमार है (*bādaśāhkī tabīyata bīmāra hai*)—*the Emperor is ill.* The word शौच (*śauca*) which means only purity or cleanliness, is used to veil the disagreeable but all the same everyday bodily necessity. The same is the case with अमक्याला देवआज्ञा झाली (*amakyālā devaājñā jhālī*) or even अमका निवर्तला (*amakā nivartalā*), where the देवआज्ञा झाली (*devaājñā jhālī*) and निवर्तला (*nivartalā*) are euphemistic for तो मेला (*to melā*), *he died*; बांगडी फुटली (*bāṅgaḍī phuṭalī*) would be revolting to an orthodox woman; she would say बांगडी वाढवली (*bāṅgaḍī vāḍhavalī*)—*bangle increased.* Polite language abounds in such expressions as रावसाहेब खाली आले (*rāvasāheba khālī āle*), for the disagreeable रावसाहेब घोड्यावरून पडले (*rāvasāheba ghoḍyāvarūna paḍale*). The opposite of this tendency is seen, when words which primarily are not polite or desirable, are used in a sense that is far too dignified for their appearance. Such is तासडपट्टी केली (*tāsaḍapaṭṭī*

* The word *budget* originally meant a knapsack : (bulga); now it means estimate of revenue and expenditure of a state, submitted by the Chancellor. Ed.

kelī) or हजामत केली (*hajāmata kelī*), a strong expression for *remonstrated with.*

Associative disturbance in meaning :—Association, both by similarity and by contact is responsible for a good deal of change or shifting in meaning. Yāska, the author of the निरुक्त (*Nirukta*) appears to be cognisant of this fact when he says, while deriving कक्ष्या (*kakṣyā*) as कक्षं सेवते (*kakṣaṁ sevate*), अयमपीतरो मनुष्यकक्ष एतस्मादेव बाहुमूलसामान्यादश्वस्य (*ayamapītaro manuṣyakakṣa etasmādeva bāhumūlasāmanyādaśvasya*). Here, of course, there is some expansion due to association by similarity. पत्रम् (*patram*), for instance, is first *leaf*, and then by association, by similarity *paper, letter.* पाद (*pāda*) is *foot*, then *part. e. g.* निरुक्त-पादः पद्यतेः अयमपीतरः प्रभागपादः पशुपादप्रकृतिः (*nirukta-pādaḥ padyateḥ ayamapītaraḥ prabhāgapādaḥ paśupādaprakṛtiḥ*). In काय बाजार भरला आहे (*kāya bājāra bharalā āhe*), बाजार (*bājāra*) means the *noise* and *confusion* associated with a बाजार (*bājāra*) or market-place.

As examples of semantic change due to association by contact, we might cite Sk. मषी (*maṣī*) *collirium*, then *ink* ; Sk. आम्र (*āmra*), the *tree*, then its *fruit*; Mar. ताट (*tāṭa*) *dish, plate* and then *meals* taken in the dish, in the language of the Marāṭhās ; दिवा (*divā*) first *light* and then *lamp* ; गांव (*gāva*) first a *village*, and then the *people* in the village उज्जयिनी (*ujjayini*) for the crowds in the town, in मृच्छकटिक *Mṛcchakaṭika*) I. विषमभराक्रान्ता नौरिव पर्याकुला उज्जयिनी आसीत् (*viṣamabharā krāntā nauriva paryākulā Ujjayinī āsīt*) is a good classical example.

Metaphor :—Between this and transferred sense or metaphor there is not much difference. Sometimes the metaphors are not felt as such, but often they are too transparent. हात (*hāta*) *hand* means *mainstay* or *support* also ; तो माझा उजवा हात आहे (*to mājhā ujavā hāta āhe*). Most of the

words of abuse must belong to this class; गाढव (*gāḍhava*), बैल (*baila*), म्हसोबा (*mhasobā*), are some of them. In words like सज्ज (*sajja*) *ready*, however, the metaphor ceases to be felt and the word is taken primarily to mean what it only signifies secondarily. The original meaning is *with the bow strung*, चर्वितचर्वण (*carvitacarvaṇa*) *repetition*, चऱ्हाट (*carhāṭa*), a *tiresome speech*, कीस काढणें (*kīsa kāḍhaṇē*) *to find out subtle distinctions* or *descend into wearisome detail*, तिळांजळी घेऊन बसला आहे (*tiḷāṃjaḷī gheūna basalā āhe*) *waiting for an opportunity to ruin a man*, हातघाईवर आला (*hātaghaīvara ālā*) *was very much irritated*, देव for a *Brahmin* when a village farmer says to a Brahmin, देवा मोहोतर सांगा (*devā mohotara sāṁgā*) are examples. Here too the idea that this is primarily a metaphor is lost sight of. The list of examples can be multiplied at will.

Words which primarily denote only one object come to denote also other objects of the class; or in other words proper names become common names. The word *father* means to the child only *its* father; but it is later extended to the class of persons of that relationship. Thus also गंगा (*Gaṁgā*), which is the name of the Ganges only, is applied to big and probably holy rivers like गोदावरी (*Godāvarī*), कृष्णा (*Kṛṣṇā*) and कावेरी (*Kāverī*). A woman in Sangli will always say गंगेवर गेलें होतें (*gaṁgēvara gelē hotē*), when she only means कृष्णेवर (*Kṛṣṇevara*) etc. A village woman, asked the name of the little stream near the village, will always say गंगा (*gaṁgā*). In सोनें नाणें आमचे जवळ कांहीं नाहीं (*sonē nāṇē āmacejavaḷa kāhīṁ nāhīṁ*), the word नाणें (*nāṇē*) has an expanded meaning. This is the same as the *expansion* of BREAL, referred to above.

The contrary of it is *restriction*, also attended to above, whereby a word primarily denoting a class etc. simply denotes an individual or detail of that class; *e. g.* शहर (*śahara*), *town* above mentioned. सोनें (*sonē*) *gold* is also restricted to mean *ornaments of gold*, देश (*deśa*), *country* to mean the part

of a country, even a village to which a man belongs, *e. g.* वायदेस (*vāyadesa*).

There is a tendency in some words to lose their independence and become dependant upon some other words to which they appear to be tacked on. The copula is a good example. It loses its primary sense of *existence, being*, and becomes simply an auxiliary in forming some compound tenses. *e. g.* तो करीत आहे (*to karīta āhe*) and तो आहे (*to āhe*). This is, however, best seen with negation of the last, तो तेथें नाहीं आहे (*to tethē nāhī āhe*) where आहे (*āhe*) becomes simply an unmeaning appendage.

To this class belong prepositions and conjunctions, and personal terminations. They were originally as good flexibe words as nouns and pronouns, but are now merely reduced to a secondary importance, in drawing out the case and other relationships in a sense. Yāska, the author of the निरुक्त (*Nirukta*) had apparently seen this, when he said न निर्बद्धा उपसर्गा अर्थान्निराहुः, नामाख्यातयोस्तु कर्मोपसंग्रहद्योतका भवन्ति (*na nirbaddhā upasargā arthānnirāhuḥ, nāmākhyātayostu karmopasaṁgraha-dyotakā bhavanti*). The prep. पश्चात् (*paścāt*) is an old ablative in the same way as अभितः (*abhitaḥ*) and परितः (*paritaḥ*) which use the case-ending and become simple अभि (*abhī*)and परि (*pari*). The adverb विशेषेंकरून (*viśeṣē karūna, particularly*) was and has still kept the unmistakable signs of a gerundial phrase The Sk. preposition उद्दिश्य (*uddiśya*), which governs the accusative, is nothing else than an absolutive. The conjunction यत् (*yat*) was originally a pronoun. So was the Marāṭhī कीं (*kīm*) originally the pronoun किम् (*kim*).

Most of the adverbs also belong here. ततः (*tataḥ*) was originally abl. of तत् (*tat*), the demonstrative pronoun. शनैः (*śanaiḥ*), नीचैः (*nīcaiḥ*) have still preserved their instrumental ending in ऐः (*aiḥ*). In सुखं (*sukhaṁ*), the adv., one clearly sees the acc. of the noun सुख (*sukha*). हेलया (*helayā*),

old Marāṭhī हेळा (*heḷā*) (as in एकी हेळा *ekī heḷā*, *Jñāneśvarī* 4, 39 ; 9, 130 etc.) is an old instrumental. This is more a change of function than of meaning. The same has happened to the personal terminations मि (*mi*), सि (*si*), ति (*ti*), etc. which really were pronouns.

Sometimes one finds double forms of a word current in a language at one and the same time. Originally, of course, both must have signified the same thing ; but later the superfluity of such a thing led to the differentiation in meaning *e. g.* Mar. काज (*kāja*) from Sk. कार्य (*kārya*) through Prākrīt कज्ज (*kajja*); कज्जा (*kajjā*) the borrowed word and कार्य (*kārya*) which was bodily borrowed from the Sanskrit. A differentiation was sought in this way. काज (*kāja*) came to mean ordinary *business* or *object* ; कज्जा (*kajjā*) a *legal business, quarrel* ; कार्य (*kārya*) *ceremonial.* See French *chose* above quoted. Sometimes words that signify an idea or object are used to signify a feeling. *e. g.* रामा, रामा ! (*Rāmā, Rāmā* !) देवा, देवा ! (*devā, devā* !), आई, आई ! (*āī āī* !) अरे बापरे ! (*are bāpare* !) side by side with interjections like अरेरे, अबब (*arere, ababa*). Even whole phrases sometimes weaken into interjections ; विष्णवे नमः (*viṣṇave namaḥ* !), रामाय तस्मै नमः ! (*Rāmāya tasmai namaḥ* !) हरा शिवा गोविंदा ! (*Harā śivā Govindā*).

These changes make it manifest that they are entirely independent of phonetic change. But sometimes they do coincide, as when we have *man*, one man and *men*, more men ; *foot* one foot, but *feet* more than one ; हरी (*harī*), one person but हरयः (*harayaḥ*) many of them. This change in meaning is not, however, of such a nature as to justify its being placed side by side with the semantic change above spoken of. For, the change in the meaning here, is only of degree and not of kind.

18 SYNTAX :—Syntax is the arrangement of words in a sentence according to mutual relationship, as determined by

their usage. This was recognised as a legitimate part of grammar in ancient Greece, Rome and India. But it did not come by its own in Comparative Philology until very recently. The phonetic and formal side of language was considered most important and the sentence with its various vicissitudes was set aside. Historical syntax was unduly neglected in the time of BOPP; and with the exception of LANGE'S essay in 1852, there was no literature on that subject, until WINDISCH and DELBRUCK took up the study of comparative syntax in their *Syntaktische Forschungen* (1871–88). It received full recognition in the *Vergleichende Grammatik* by BRUGMANN and DELBRUCK and forms its fifth volume called *Vergleichende Syntax* (1893). Even now, text books of comparative grammar of the individual languages generally contain only two divisions, *Lautlehre* and *Formenlehre* or phonology and inflection; *e. g.* SOMMER, HIRT, THUMB'S *Handbooks* of the Latin, Greek and Sanskrit languages.

Consideration of syntax is mainly the consideration of the different parts of speech, their genesis and function. Even very primitive languages must show names for objects or *substantives*, for attributes or *adjectives* and for actions and states or *verbs*; whether or not they are distinguished as such is a different question. There are certain languages which do not distinguish between them; and it is not at all improbable that our languages, too, might not have distinguished them originally.

Some of the remaining parts of speech, the *adverb*, the *preposition*, the *conjunction* give us a good insight into the gradual formation of syntax; because they are formed in historic times and bear clear marks of their genesis. The first and foremost of these is the adverb. Words like किम् (*kim*), दक्षिणा (*dakṣiṇā*) *to the right*, एना (*enā*), दिवा (*divā*), शनैः (*śanaiḥ*) *slowly*, कामं (*kāmaṁ*), तत् (*tat*) *therefore*, कुत्र (*kutra*) and यत्र (*yatra*), उपाजे (*upāje*) and अन्वाजे (*anvāje*)

so as to support, हेलया (*helayā*) *easily*, सहसा (*sahasā*), *forcibly*, साकं (*sākaṁ*) *with*, सुखं (*sukhaṁ*) or सुखेन (*sukhena*) *happily*, show that they are cases of nouns, pronouns, or adjectives, acc. inst. abl. and loc. The way these forms hardened into adverbs seems to have been something like this. Originally their case function must have been as alive as that of other words. But because these forms became more closely attached to verbs than others, they were attracted by them. They then became isolated and thus came to be looked upon as adverbs, instead of so many cases of nouns or pronouns or adjectives. The Greek οἴκοι (*oíkoi*), πέδοι (*pédoi*), κακος (*kákos*), Latin *rechte*, *primium*, Avesta *yaθa*, *θwato*, *dakśiṇa*, *āát* (then), Marāṭhī कधीं (*kadhī*), हलके (*halake*), झटदिशी (*jhaṭdiśī*), पलीकडे (*palīkaḍe*) आरती (*āratī*) are examples of such adverbs. In Marāṭhī today we can form adverbs from nouns by adding the नें (*nē*) of the instrumental. मोठ्यानें ओरडली (*moṭhyānē oraḍalī*), झटक्यानें गेला (*jhaṭakyānē gelā*) etc. 'If a word' says BREAL, 'ceases in the smallest degree to be perfectly clear in its conception, if, above all, any appearance of irregularity be in the least degree visible, it is classified apart.' Such has actually been the case with our adverb and some other parts of speech.

From the fact that the Indogermanic languages show no agreement in the choice of the inflection which was isolated as an adverb, BREAL concludes that the adverbs are of a recent date, although the idea of such a modification of the adverb must have been existing in human intelligence long before. Another part of speech, the preposition, also has to tell the same story. The prepositions are original adverbs as कृते (*kṛte*), ऋते (*ṛte*), पश्चात् (*paścāt*), सत्रा (*satrā*), सार्धं (*sārdhaṁ*), समं (*samaṁ*), Marāṭhī पाशीं (*pāśī*), कडे (*kaḍe*) show. WHITNEY's[1] words on this point are appropriate: 'There is no proper class of prepositions, no body of words having for their prevailing office *government* of nouns. But

1. *Sanskrit Grammar* p. 414.

many of the adverbial words indicated above are used with nouns in a way, which approximates them to the more fully developed prepositions of other language.' BREAL[1] goes further still when he says "the preposition is even more modern than the adverb. At the time that our languages separated, there was not one single genuine preposition." If so, how did prepositions arise at all ?. To this BREAL[2] has a carefully considered answer. " It is well known that at first every substantive marked the relations of dependence, of interiority, of instrument, etc. by modifying its formal syllables. But this method of expression was at once complicated and insufficient. It was complicated, because substantives, not being all constructed alike, appeared under different forms in one and the same case (gen. *domini, rosae ārboris*). It was insufficient, because the cases of the declension were too few in number to express all the relations that the mind was capable of conceiving. This was the reason why adverbs were placed by the side of these cases to define them. But the habit of placing the same adverb by the side of the same case could not fail in the long run to produce upon the mind of men an effect of which we shall presently give other examples : between the inflection and the particle of place or time they supposed the existence of some special connection, some relation of cause to effect. Instead of considering the adverb as a mere determinant of the case, popular intelligence saw in it the actual cause of the case; a well-known paralogism that philosophy designates by the formula '*cum hoc, ergo propter hoc.*' But when a paralogism is universal, it is undoubtedly not far from giving the impression of a truth. In the matter of language, that which the people believes itself to feel, passes into the condition of reality. Adverbs of place and time like ἀπό, περί, ἐπί, πρός, μετά, πάρα, (*apó, peri,*

1. *Semantics* p. 183.
2. *Op.Cit.* pp. 17 and 183.

ėpí, prós, metá pára) from having been the accompaniment of the genitive, dative or accusative became the cause of these cases ; from having been adverbs they became prepositions. The minds of men endowed them with a transitive force".

Conjunction :—The fact that while the Latin and Greek languages show a number of conjunctions as such, in Sanskrit the conjunction as a class should be wanting is a significant fact and shows that perhaps many of them are not Indo-European. Whereas the other languages combine clauses by means of these, the Sk. language[1] generally satisfies itself with composition of words, with gerunds and with इति (*iti*), with abstract nouns in case-forms.

यत् (*yat*), तत् (*tat*), यदि (*yadi*), तर्हि (*tarhi*) the most common conjunctions in Sanskrit, are pronominal (relative etc.), bases. So are Latin *ut, ne, quominus, quin* and the Gr. ὡς (*ós*). These were all of them once full fledged words having their own declension and signification. But the latter was lost and the pronoun came to be looked upon as a conjunction. Among the few examples of conjunctions being derived from substantives is कारण (*kāraṇa*), मला तेथें येतां आलें नाहीं, कारण मी गुंतलों होतों (*malā tethē yetā ālē nāhī kāraṇa mī guṁtalo hotō*) where कारण (*kāraṇa*) a noun is evidently used as a conjunction.

Thus three parts of speech—the adverb, the preposition and the conjunction—prove themselves to be new formations from existing old material. The process of their formation was a slow one. It belongs to historical times. Applying the results gained by observations upon existing facts, it is not improbable that even the substantive, adjective and verb did not originally exist, but were the result of a slow process of growth. Time must have been when primitive savage men could denote only objects and states. From them must have developed the substantive and adjective.

1 WHITNEY, *Sanskrit Grammar* p. 416.

verb etc, But even before the substantive, the pronoun perhaps existed. δίδωμι (*dídomi*), ददामि (*dadāmi*)— I give, contained the idea of the subject in the termination मि (*mi*) and the want of a different subject was never felt. Again to a savage, himself, *i. e.* I, his *ego* is the most important person; all else are *others*. Amongst these others there are some closer to him, whom he calls *you;* the rest are *they*. It is the pronoun therefore that must have been the word to be the earliest distinguished from others. "It is more primitive, more instinctive, and more easily explained by gesture" etc. than substantive which it must have preceded.

Speaking of *pronouns*, the genesis of the relative pronoun is worth considering. It is also an example of syntactical conversion. In the case of the adverb, the preposition and the conjunction, conversion took place from one class to another; here it takes place within the same class . BREAL points out the conversion thus: a certain pronoun, in no way distinguished from others externally, acquires by the use to which it is put, a force of union which allows it to weld together two propositions. This is expressed in grammatical language as follows: from demonstrative it becomes relative. This explains how the demonstrative *that* could have become the relative *that*. Here again it must be remembered that the idea of the relative must have been there before the Indo-Germanic people separated. There was some way of expressing the relative idea *e. g.* the Sanskrit addage बुद्धिर्यस्य बलं तस्य (*buddhiryasya balaṁ tasya*) or यद्ददासि तत्ते वित्तम् (*yaddadāsi tatte vittam*).

The same is the case with the *article,* which exists only in some Indo-German languages, not in all. It is the old demonstrative pronoun. The English *the,* German *der,* Gr. (relative) ὅς (ὅς), French *le* are all original demonstratives, however, with a certain change in meaning; they have lost their independence and become a syntactical instrument.

The so-called *copula,* Eng. *to be,* Ger. *sein,* Fr. *etre,* Marāṭhī असणें (*asaṇē*) shows the same history behind it. It was originally an independent finite verb and generally singified existence. But it was brought to the help of other verbs and has almost become an auxiliary, excepting when it is used independently. In sentences like *he is dead,* Ger. *er ist tot,* तो मेला आहे (*to melā āhe*), it is simply a syntactical itnstrument and nothing else. When we say तो मेला नाहीं, तो आहे (*to melā nāhī, to āhe*) we use the word both as a copula and as a finite verb. Other auxiliaries also share the same fate; *e. g.* Eng. *have, he has lost all he had,* is as good an example of this fact as the above Marāṭhī sentence.

Coming to verbs, we find distinction made between *neuter* and *transitive* verbs. Neuter verbs are those which acquire no object to complete their sense. They are self-sufficient and thus have a claim to precedence. The transitive sense must have been a later process because mutual understanding in the old primitive state required words to possess their full signification. Some of the neuter verbs were frequently associated with words which dertemined them or pointed their action towards a particular object. When the mind got accustomed to this phenomenon, it required such words (completions) of most verbs. Thus स गच्छति (*sa gacchati*) conveys a complete sense; but it was often associated with words like ग्रामम् (*grāmam*), गृहम् (*gṛham*). By a transfer of ideas[1], analogous examples of which are found outside philology, our intelligence believed that it felt in the very words themselves that which is the mere result of our habit or thought. From that moment arose verbs that demanded a complement. This led to a twofold result; the meaning of the verbs was modified; and the significative value of case terminations was restricted. The root ऋ (*ṛ*) thus means *to go* simply. But with objects it slightly changes

1 BREAL, *Semantics* p. 190

its meaning : Sk. स मरणमृच्छति (*sa maraṇamṛcchati*) *he meets death.* The same is the case with पत् (*pat*) to fall; नरकं पतति (*narakaṁ patati*) means *goes to hell.*

Sk. अधि (*adhi*) originally an adverb, became prepositional and governed an object. Later it was joined to roots and transferred its object to the root. Sk. अर्थं अधिगच्छति (*arthaṁ adhigacchati*) *he gets wealth* was originally like अधि अर्थं गच्छति (*adhi arthaṁ gacchati*) *goes towards* etc. The prepositional adverb has kept its independence in Vedic language. The root या (*yā*) means *to go.* Followed by the acc. it means *to pray*: तत्त्वा[1] यामि ब्राह्मणा वन्दमानः (*tattvā yāmi brāhmaṇā vandamānaḥ*). BREAL has quoted interesting examples from Latin and Greek. The German word *abtreten-to retire* is a neuter verb, becoming transitive taking the dative of the person in a sentence like *'jemandem etwas abtreten'*. Lastly we shall turn to the noun, especially its syntax of cases. All the Indo-European languages had the seven cases. In some, however, even in the olden times same cases were fused together as the dative and instrumental, the ablative and locative in the Greek and Latin languages. The function of the instr. and the loc. has been taken over by the dative in Greek and by the ablative in Latin. In Greek the instr. and abl. have totally disappeard and locative, dative have almost fused together. Really speaking the difference in the functions of these cases was not very great and in their very genesis lay the germ of their decay. In some cases, similarity of form was the root of all confusion ; *e. g.* instr. plur. of the stems in Greek, οις (*ois*), was confused with the ending of the loc, οις–(ι) (*ois*–(*i*)), in words like οἴκοις, οἴκοισι (*oíkois, oikoisi*).

Causes of fusion of cases.—The first cause is syntactic, as one case extends the area of its usage at the expense of another *e. g.* Gr. dative and Lat. ablative. The second is

1 *Rv.* I 24,11.

2 HIRT, *Handbuch* p. 306.

phonetic, *e. g.* the inst. and loc. in Greek. A third cause is the comparative frequency or want of it. The dual and many of the plurals are less needed than the singulars and are therefore disappearing; they have mostly disappeared in the western group. The dual had disappeared even in the old languages except in Sanskrit and plurals of many cases had the same form *e. g.* रामेभ्यः (*rāmebhyaḥ*) for dative and ablative plural; रामाभ्याम् (*rāmābhyām*) for instr. dat. and abl. dual., रामयोः (*rāmayoḥ*) for gen. and loc. dual; रामौ (*rāmau*) nom. acc. and voc. dual.

But there are really many more syntactical relationships than could be well distinguished by the cases. The instrumental itself shows in Greek and in other languages double endings, and has led scholars to believe that they represented originally two distinct cases. HIRT[1] calls it *Casus Indefinitus*. Languages like the Finnish and Turkish have a vast number of cases and can therefore express greater definiteness of relation than the Indo-German languages could do. Again the relations that were expressed were felt to be less definite than required and hence the aid of adverbs was profusely taken. This tendency is seen even in the oldest of the Indo-German languages. It grew as time went on, as it was found very convenient; until we see to-day languages which have already given over most of the cases, and have made adverbs or rather prepositions current coin. From synthesis they have passed to analysis. The English language is the best example of this. The one form *me*, with proper preposition, is made to serve for all cases: 'by me, to me, for me, in or at me, of me.' Even the acc. *me* was thought inadequate to express the relationship of the indirect object and the preposition *to* was prefixed to it; *e. g.* he gave *me* a book, but, he gave a book *to me*. The French language compares favourably

1 *op cit.* 305.

with the English in this respect. The rigid inflexibility of the cases is there less felt and a variety of relationships is expressed with greater ease. The German has preserved four cases in the article and in some declensions. But a different picture is presented by the modern dialects of India. They are not, as was naturally to be expected, getting so pronouncedly analytic, as the English and the French languages have been. They have on the contrary, invented newer inflections. The former, like the Japanese and Chinese, caught hold of the order of words or a fixed position as the best mode of expressing syntactical relation. Thus 'RĀMA defeated RĀVAṆA' will yield the desired sense only in this order. If it is reversed, it gives quite the opposite sense. In Marāṭhī, for instance, राम रावणाला मारतो (*Rāma Rāvaṇālā mārato*) could also be expressed as रावणाला राम मारतो (*Rāvaṇālā Rāma māralo*) without detriment to the sense. Thus the Indian languages have apparently gone a different way. Here the tendency is not towards wholesale analysis; but rather towards a more or less halting synthesis. Thus to the old Sk. cases were added prepositions, just like those in Greek and Latin, but they were so welded together that they soon were looked upon as new inflections. Guj. गाममां (*gāmamā̃*) or Hindī गांवमै (*gā̃vamai*) is from Sk. ग्राम-मध्यात् (*grāma-madhyāt*) through गाम-मज्झा (*gāma-majjhā*), मज्झि (*majjhi*) माहि or महि (*māhi* or *mahi*), महि (*mahi*), मइ (*mai*), मां (*mā̃*) etc. To-day मां (*mā̃*), मै (*mai*) are looked upon as locative case-endings. The same is the story of गांवांत (*gā̃vā̃ta*) which originally is गांव + आंत (*gā̃va* + *ā̃ta*) from अंतः (*antaḥ*), the adverbial post-position. But no one now thinks that it is an adverb—it has now become a regular inflectional ending. The ला (*lā*) of the dative goes back upon लागीं (*lāgī̃*) in what may be called mid—Marāṭhī, which again is traceable to लागौनि (*lāgauni*), evidently a verbal form, seen on the Nāgaon inscription of A. D. 1367. ला (*lā*) goes back upon लाई (*lāi*), लागी (*lāgī̃*) too. Cf. Maith. लै (*lai*).

THE FAMILIES OF LANGUAGES.

1

Red Indi-	Semitic Hebrew Phoenician Assyrian Syrian Arabic	Hamitic Ancient Egyptian Berber Libyan Haussa	Mono-syllabic or S. E. Asiatic: Chinese Siamese Burmese Tibetan	Ural Atlantic or Turanian Japanese Magyar Finnish	Aryan or Indo-European— Hittite, Vedic Old Persian Sanskrit Greek Latin Hindi Bengali German English Gypsy Russian Marathi	Dravidian Canarese Telugu Tamil	Malayan Polynesian	Australian and Papuan or Negrito	Caucasian	Basqu	Amer-Indian Languages	Central African Languages

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PART II

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FAMILIES OF LANGUAGES

In the first part of the book, we dealt with the general principles of our science. We looked at language from both aspects, the formal and the material. While dealing with the formal side of language, we observed how language was formed, how it grew, what were the laws that governed its growth, what were phonetic laws, what were the principles that apparently counteracted them and other cognate points. In dealing with the material and content of language, we took notice of the two branches of semantics or the science of meaning of words, and syntactics, if it may be so called, or the science of the mutual relations of words in a sentence.

20. LANGUAGE GROUPS:—We shall now speak of the division of languages based upon the difference in morphology or word formation, before going to the history and description of the Indo Germanic languages proper. This morphological classification is to be distinguished from the genealogical classification of languages. Here four classes are put forward:—

(1) The *agglutinative* languages. The name comes from Latin *gluten*, lime, *glutinare*, to glue with lime. The forms of words are made up by suffixes and the two appear to be *glued* together to some extent. However, the stem and suffix always keep their individuality and are felt as individual parts within the word-form. If there is some phonetic change, while the suffix is added, it is not, as in the Indo-Germanic languages, a necessary condition. The suffixes could thus be consciously separated from the stem and may be looked upon

as independent words. The one advantage of this is, that the singular and plural then need not have separate terminations; the change of the suffix between stem and termination is sufficient for that purpose.

The Turkish language is an example of agglutination and the instance oft quoted[1] is that of *ev*, house:—

	Sing.	Plural.
Nom.	*ev*	*ev-ler*
Acc.	*ev-i*	*ev-ler-i*
Dat.	*ev-e*	*ev-ler-e*
Abl.	*ev-den*	*ev-ler-den*
Gen.	*ev-in*	*ev-ler-in*
Loc.	*ev-de*	*ev-ler-de*

The inserted syllable is either *e* or *a*, (*e. g.* in *ler* or *de*) according as the syllable of the stem is *e* or *a*. Thus then, there is a kind of vowel harmony. There is a variety of case-relations unknown to the Indo-Germanic languages. The process of adding or removing syllables at will, adds a power to the agglutinative languages. Besides the example quoted above, we have, for instance, this other one:—*el* hand, *el-im* my hand, *el-im-de* in my hand, *el-im-de-ki* being in my hand. Besides the Turkish, the Hungarian & Finnish languages belong to this group.

(2) *The agglutinative-inflectional* languages have both suffixes and inflection like the Indo-Germanic languages, for the formation of words. The difference of this class from the former one is that here the stems must have inflection before the suffixes and the similarity is the addition of the suffixes. The Semitic languages show vowel-change in the root. Words are formed in such change by varying in a particular way the

1. PORZEZINSKI, *Einleitung*, p. 135. GILES, *Manual of Comparative Philology*, p. 41.

vowels attached to the consonants, partly by prefixes and partly by suffixes; *e. g.* root *sgd* gives *masgid.* The root *slm,* gives *selima, salam, islam, muslim, selim,* and *suleyman.* The Tibetan language is also an example of Agglutinative language.

(3) The third class is formed by languages that do not have complete word-forms. They are the so-called *root* or *isolating* languages. The Chinese language is an example. Here it is the position of the word in a sentence that determines its character. Thus a word is a verb, noun, or adjective, not because it has the distinguishing characteristics of these, but because it occupies a peculiar position in the sentence. The position and the tone determine the meaning of the word in a sentence which is a string of words. Old Chinese and Burmese are Isolating languages. These are called root languages, because what are roots in other languages, are in them complete and independent words. They may be simple or compound. Another name for these is isolating languages.

(4) The *inflectional* languages:—*e. g.* the Indo-Germanic and the Dravidian groups. These are distinguished from the others by their pronouncedly inflectional character. From the Turkish they are distinguished by the absence of the inserted syllable which serves for inflection, by a lesser number of cases, (and we have seen, there is a tendency to lessen these still more, *e. g.* English, French, etc.) by possessing compound words which the *agglutinative* languages do not possess, by the demarcation of the various parts of speech, whereas in the lowest form of the Hungarian, for example, there is little difference between noun and verb. In the latter language the ending part for the first person is the suffix used in the noun to express *my*; *hal-unk*[1] means

1. GILES, *Manual of Comparative Philology,* p. 42.

our fish and *var-unk* we sow. Cf. *ur-am*[1] my master, *ur-unk* our master. In the Turkish language the verb is mostly formed of a participle with personal pronouns appended to the 1st and 2nd person; for the 3rd person the mere participle is used.

(6) DIFFERENCE BETWEEN PURELY INFLECTIONAL AND AGGLUTINATIVE-INFLEXIONAL LANGUAGES:—The distinguishing characteristics between the Indo-Germanic and the Semitic families, to which latter belong the Assyrian, Hebrew, Aramaic, and the languages of the Arabic family are (1) the vowel gradation of roots and stems in the Indo-Germanic; (2) the peculiar form of the Semitic roots. These latter, with very few exceptions, possess three consonants. The vowel-change within the root is of a different character from that in the Indo-Germanic; *e. g.* the roots *sjd* and *slm*. The verb alone is highly inflected in the Semitic languages and consists of noun and adjective forms, combined with fragments of personal pronouns, prefixed or affixed.

The question, whether the Semitic and Indo-Germanic languages are related to one another, is as old as 1828, when KLAPROTH raised it. Since then it has been the subject of many essays and monographs but no definite conclusion could be drawn. In the case of the *isolating* and merely *agglutinative* languages, such questions could not arise, as

1. CALDWELL, *Comparative Grammar of the Dravidian Languages* p. 307.

The famous Danish philologist, Otto JESPERSEN gives the following instance from a Chinaman's description of a three-masted screw steamer with two funnels: *"Thlee piece bamboo, two piece puff-puff, walk-along inside, no can see"*. There is a movement to day towards flexionless languages, with freely combinable elements, and Dr. CHATTERJI has given a lucid explanation of this phenomenon in Modern Hindustani, which he styles Bazaar Hindustani. See his masterly treatise, *Indo-Aryan and Hindi* (1942). English resembles Chinese in its movement towards flectionless freedom. Ed.

they showed nothing like a kind of inflection. But the Semitic languages possess a kind of inflection and hence the necessity of the question. But in other things like phonology, morphology and syntax, which are the backbone of a language, they show such a wide divergence, that it is not possible to say from them alone, that the Indo-Germanic and Semitic languages are interrelated. Scholars like MÖLLER have very recently (1907) tried to reconstruct the parent Semitic language, and they seem to compare this with the so-called parent Indo-Germanic language. But a comparison between such hypothesized languages, for which there is no historical proof that they ever existed, or if at all, in the particular form in which they are reconstructed, defeats its own end.

There appears however to be a close resemblance and therefore a relationship between the Semitic and the Hamitic languages. These latter comprise the Egyptian and the Koptic (now dead) languages. Certain other North-African languages—the Berber language and the languages of Abyssinia—are believed to belong to this group.

Some scholars contend that the Semitic and the Chinese are related with each other. This whole question of language-relationship is as difficult as it is vast. Considered in an abstract way, the question may perhaps be generally accepted. Although such a connection between the languages of the different groups, and languages within one group, like the Indo-Germanic and the Dravidian which also are highly inflectional, cannot as yet be historically proved, yet there is perhaps nothing unnatural if we accept the possibility of such a connection. Men and their language have a long history behind them, and if at all the Indo-German and the Chinaman, to take extreme cases, were once living together, and what is more pertinent, speaking the same or closely allied languages, the separation took place in such a

hoary past and took such divergent ways, that all traces of a possible companionship were totally obliterated. As a matter of fact, the day is not yet come when one could brush aside the question as settled one way or the other; for, so much is yet to be done for other groups of languages, the Semitic itself for instance. Until all the chief languages of the world are studied as closely as are the Indo-Germanic languages, no one has the right to say that the question is closed either one way or the other.

21. SOME DRAVIDIAN TABLES:—Among the greatly inflectional and partly yet agglutinative languages, the Dravidian languages—Telugu, Tâmil, Malayâlam, Kânarese etc.—take a high rank by their developed form, which compares favourably with that of the Indo-Germanic. These have very great affinities with the Scythian or Turanian group; some scholars hold that they actually belong to it.

The two following tables clearly show their character.

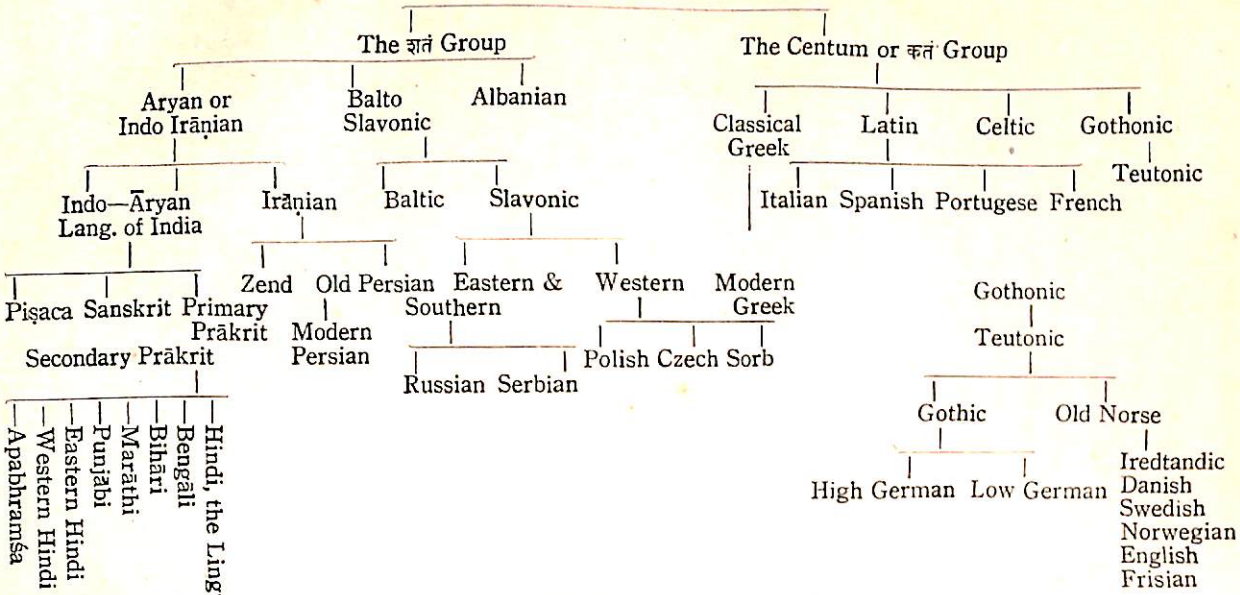
I.

Sing.	Telugu.	Tâmil.	Malayâlam.	Kânarese.
N.	*gurram-a tree*	*maram*	*maram*	*maram*
A.	*gurramunu*	*maratte*	*maraṭṭine*	*maramam*
	gurram		*maratta*	*maranam*
D.	*gurramunaku*	*marattirku*	*marattinnu*	*marake*
				marakke
G.	*gurramu*	*marattinadu*	*marattindre*	*marda*
	gurramuyokka	*marattina*	*marattinnḍe*	*maradā*
Plu.				
N.	*gurramulu*	*marangaḷ*	*marannaḷ*	*maragal*
	gurrālu			
A.	*gurramulanu*	*marangaḷei*	*marannaḷe*	*maragaḷam*
	gurrālanu			
G.		*marangalinadu*	*marannaḷuḍe*	*maragaḷa*
		marangaḷnia		

II.

ênu, ê, nê	I.	*yân, nan*	*nân*	*yân, ân, nâ*
êmu, mêmu	we.	*yâm, nâm*	*nâm, nammal,*	*âm, âvu, nâvu*
		nângal	*ñaṅgaḷ*	
nivu, nî îvu	thou.	*nî, nîy*	*nî*	*nîn, nî nînu*
mîru, îru	you.	*nîr, nîvir*	*niṅṅaḷ*	*nîm, nîvu*
		nîngal	*nîṅṅal*	
nâ, nan	my.	*en*	*en, in*	*en, nan*
nî, nin	thy.	*nin, nun, un*	*nin*	*nin*

THE INDO-EUROPEAN OR ĀRYAN FAMILY OF LANGUAGES.

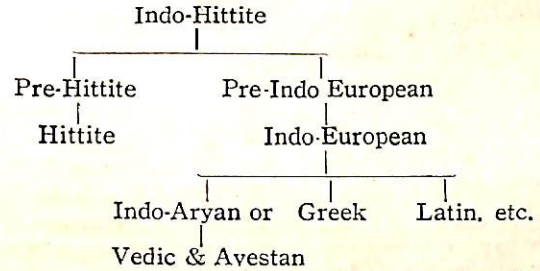


To face page 95.

22. THE INDO-GERMANIC FAMILY :—The Indo-Germanic family includes several groups of languages. They are (1) the *Aryan, which comprises the ancient Sanskrit and the Avestan languages, (2) the Armenian, (3) The Greek, including Ionic, Attic, Doric and other important dialects, (4) the Albanian, (5) the Italian group, consisting of Latin, Oskan, and Umbrian dialects, (6) the Celtic, composed of Britannic and Gaelic (Irish and Scottish), (7) the Germanic branch including Gothic; the Norse, (Icelandic, Norwegian, Swedish, and Danish), the West Germanic (Anglo-saxon, Frisian, Low German, Low Frankish), (8) Balto-slavonic or Lithu-Slavonic, composed of old Prussian, Lithuanian, Lettic and the Russian, Bulgarian, Czech, Slovakian etc.

The eight groups, together with the recently discovered Tokharian, go to form the great family called the Indo-Germanic. That they are called Indo-Germanic is perhaps only an accident. In the early days of the science of philology, the Celtic group was not yet recognised as belonging to the Indo-Germanic family. A name had to be given to the family, which would include all the acknowledged languages, and it was found in the combination of the most easterly and the

* Hittite, as has now been proved by German Scholars, belongs to the Indo-European family of Languages. The tendency to-day is to regard Hittite as a sister language to primitive Indo-European. Scholars have indicated the relationship thus:—



See Appendix I:

(Table, from Dr. S. K. C.)
Ed.

(till then) most westerly languages belonging to that family. It was Indo-Germanic. But the name became inadequate on the discovery of the Celtic. Some scholars proposed to call the family Indo-Celtic but it was not generally accepted. The other name Indo-European perhaps became more popular, and scholars, excepting Germans, used it freely. The Germans however stuck to the old name, perhaps out of patriotism, but more out of habit. Japhetic, the old Biblical name, was easily discarded. Indo-Aryan is an ambiguous name; it more usually designates the Sanskrit-Avesta group.

The comparison of the several branches with one another has made the task of ascertaining, whether any given language is Indo-Germanic or not, very much easier than at first. We have to note the following four points carefully, before giving our opinion that a particular idiom is Indo-Germanic. They[1] are:—(1) That the roots or bases of a language are to a great extent the same as those which appear in other Indo-Germanic languages *i.e.* it has a similar phonology; (2) That the way in which nouns, verbs and other parts of speech are formed from these roots is essentially the same as in other recognised Indo-Germanic idioms; (3) That the morphology or the inflectional and conjugational changes of words, in order to express relationship within the sentence, are of the same nature as in other Indo-Germanic languages. (4) If a language shows the same pronouns and numerals, and some of the most common words, *e.g.* those of family relationship etc. it is sure to be Indo-Germanic; because these are the words that are most essential in the language and will not be given up in favour of others belonging to a strange idiom. Of these, morphological resemblances are most important[2] and telling. Compare the following tables[3]:—

1. MEILLET-*Printz,, Verg. Gr.* 1, 15.
2. Otherwise *Giles, Manual of Comparative Philology* p. 13.
3. BRUGMANN *Kurze Grammatik* pp. 406. and 412.

(*to face page 96*)

P. 7

I. Pronouns in the different Indo-German languages.

	Sk.	Hindi.	Av.	Gr.	Lat.		Goth.	Lith.	O. Bul.
N.	अहम् (*ahám*)	मैं (*maĩ*)	*azem*	ἐγώ	(*egó*)	*ego*	*ik*	*as*	*aze*
A.	मामू (*mā́m*)	मुझे (*mujhe*)	*mam*	μέ / ἐμέ	(*me*) / (*emé*)	*mihī*	*mik*	...	*mene*
D.	मह्यम् (*máhyam*)	मुझे (*mujhe*) / मुझको (*mujhako*)	*mē*	μοι / ἐμοί	(*moi*) / (*emoí*)	*mī*	(*mis*)	*mi*	*mē*
N.	त्वम् (*tvám*)	तूं (*tũ*)	...	σύ	(*sú*)	*tū*	*þu*	*tu*	*ty*
A.	त्वाम् (*tvā́m*)	तुझे (*tujhe*)	*θwan*	σέ	(*sé*)	*tē*	*þuk*	...	*te*
D.	ते (*te*)	तुझको (*tujhako*)	*te*	σοί / τοι	(*soí*) / (*toi*)	*tibī*	...	...	*ti*

II.	Sk.	Hindi.	Av.	Gr.	Lat.	Goth.	Slav.
N.	सः (*sáḥ*)	यह (*yaha*)	*ho*	ὁ (*ó*)	*iste*	*sa*	*tъ*
A.	तम् (*tám*)	यह (*yaha*)	*tem*	τόν (*tón*)	*istum*	*þana*	*to*
G.	तस्य (*tásya*)	इसको (*isako*)	*tahe*	τοῖο (*toio*) (fr. τοσιο (*tosio*)	*istius*	*þis*	
Abl.	तस्मात् (*tásmāt*)	इससे (*isase*)	...	τω-δε (*to-de*)	*istō* (*d*)	*þamma*	...
Loc.	तस्मिन् (*tásmin*)	इसमें (*ismē*)	...	ποῖ (*poî*) or	(*is*) *tod*	*þei*	...
	तस्मिन् (*tásmin*)	...	...	τεῖδε (*têide*)		*þamma teem*	

III. Numerals in the different Indo-German languages

	Sk.	Hindi.	Av.	Gr.		Lat.	Goth.	Slav.
द्वौ,	(*dvaú*) दुवौ (*duvaú*)	दो (*do*)	*dva*	δυω	(*dúo*)	*duo*	*twai*	*dva*
त्रयः	(*tráyaḥ*)	तीन (*tīna*)	*θri*	τρεῖς	(*treis*)	*trēs*	*þreis*	*trije*
चत्वारः	(*cátvāraḥ*)	चार (*cāra*)	*caθwar*	τεττταρες	(*téttares*)	*quattuor*	*fidwor*	*cetyre*
पञ्च	(*páñca*)	पांच (*pāca*)	*panca*	πέντε	(*pénte*)	*quinque*	*finf*	*penki* (Lith)
षष्	(*ṣáṣ*)	छ (*cha*)	*xšvaś*	ἕξ	(*hex*)	*sex*	*saîhs*	*sъesъi* ,,
सप्त	(*saptá*)	सात (*sāta*)	*hapta'*	ἑπτα	(*héptá*)	*septem*	*sibun*	*septyni* ,,
अष्टौ,	(*aṣṭaú*), अष्टा (*aṣṭá*)	आठ (*āṭha*)	*aṣta*	ὀκτώ	(*hoktó*)	*octo*	*ahtau*	*asztúni* ,,
नव	(*náva*)	नौ (*nau*)	*nawa*	εἰνά	(*ἰána*)	*novem*	*niun*	*newints*(O.Prs)
दश	(*dáśá*)	दस (*dasa*)	*dasa*	δέκα	(*déka*)	*decem*	*tehun*	*deszimtis*
एकादश	(*ékādaśa*)	एग्यारह, ग्यारह	(*egyāraha* ... *gyāraha*)	ἕνδεκα	(*héndeka*)	*undecim*	*ain-lif*	*venû-lika* (Lith)

For *one* some two or three stems are current, some only common to some of the Indo-Germanic languages. Lat. has *unus*, Goth. *ains*, Sl. *ino*, Gr. οἰ̓νη (in a peculiar sense): Av. *aeva*, Gr. οι–(*F*) οε οῖ–(*F*)–os alone, Sk. एक (*eka*); (οἰ̓νη) Gr. ɛἷs (*eis*) from οἷos, σεμs, (*sems*) Sk. स–कृत् Gr. ἅπαξ, (*apaz*), Lat. *semel* is the third stem.

Compare with these, for example, the numerals of the Dravidian group:—

IV. Dravidian Table of Numerals.

Eng.	Telugu.[1]	Tâmil.	Malayâlam.	Kânarese.
one	*okaṭi*[2] / *oṇḍu*	*ondru*	*onnu*	*ondu*
two	*reṇḍu*	*iraṇḍu*	*reṇḍu*	*eraḍu*
three	*mūḍu*	*mūnru*	*mūnna*	*mūru*
four	*nālugu*	*nālu, nāṅgu*	*nāl, nāṅgu*	*nālku*
five	*eidu*	*eindu*	*aṅju*	*eidu*
ten	*padi*	*pattu*	*patlu*	*pattu*
hundred	*nūru*	*nūm*	*nūru*	*nūru*

As another instance, the following from the Khassi language, an agglutinative one like the Turkish language would be interesting.

(1) Pronouns.

nga = I,	*ia nga* = me,	*jong nga* = my, mine	*ngi* = we	
me / *ame*	thou (f) *pha*	*ia me* = thee (f) *pha*	*jong me* = thine (f) *pha*	*phi* = you
u, ka = he	*u* = him	*jong u* = his	*maki* = they	
	ia ka[3] = her	*u ka* = her		

(2) Numerals.

shi or *wei, ar, lai, saw, san, hinriw, hinnew, phrā, khyndai, shi-phew* = *one to ten*; *khadwei*, eleven.

1. CALDWELL, *Comparative Grammar of the Dravidian Languages* p. 358.

2. Marāthā readers will recognise in these numerals (वकट vakaṭa, रेंड reṇḍa, मुंड muṇḍa) etc. of their favourite game of इटीदांडु (iṭi-daṇḍu). Although the Marāṭhī has its own numerals, it borrowed these others along with the game, faithfully reserving them for that play only.

3. ROBERTS, *Khassi Grammar* pp. 31 and 38.

Comparative Method in Practice :

1 English	2 Greek	3 Sanskrit	4 Persian	5 Russian	Eng.	Greek or Latin	Skr.
Bid = command	πένθ-ομαι (*pe'nth-omai*)	बुध् (*budh*) to understand.	muzd	mzda = wages	Meed = reward	.....	मीढम् (*mīdham*)
Bind		बन्ध् (*bandh*)		luč = a	light		Hind. मज्दूर (*majdūr*)
Birch		भूर्जस् (*bhūrjas*)		ray		λευκός (*leukós*) Lat Lux	रुच् (*ruc*) & लक्ष्मी (*lakṣmī*)
Bottom	πυθμήν (*puthmén*)	बुध्नस् (*budhnas*)	bun		love	Lat lubido	लुभ् (*lubh*) desire
Bough		बाहुस् arm (*bāhus*)					
Do		धा Indg. धे (*dhā, dhe*)		moloko (milk)	milk		मृज् (*mṛj*)
Frost		पृष्वा *pṛṣvā*) frozen water		O. Ir. dam = church	timber	δόμ-os (*dómos*) Lat domus	दमस् (*damas*), a house
Feather		पत्रम √पत् (*patram √pat* to fly)	सफेत (*sapheta*)		white was		श्वेत (*śveta*) वस् (*vas*)
Full		पूर्णस् (*pūrṇas*)			raw	Lat Vesta = Goddess of the hearth	क्रव्यम्
Kin	γένος (*génos*)	जनः √जन् (*janaḥ √jan*)	zāda		A. S. hrēaw	Lat crūdus	(*kravyam*) क्रूरस् (*krūras*)

23. CHARACTERISTICS OF THE PRINCIPAL GROUPS:—The chief characteristics of these languages or groups of languages might be noted here.

1. Some of the characteristics of the Aryan group: the merging of the simple vowels ĕ, ŏ, ă, in अ (*a*) *e.g.* भरामि (*bhárāmi*) for Gr. φέρω (*phéro*), Lat. *fero*, Goth. *baira*, Old Irish *berim*, Sl. *bera*; Sk. अवि (*ávi*), for Gr. ὄις (*ois*), Lat. *ovis*, Goth. *awēþi*, (where *þi* denotes group or herd), Lith. *aves*, Ir. *oi*: Sk. अजति *ájati*), for Gr. ἄγω (*ágo*), Lat. ago, Old Ir. *agat*, etc.. (2) change of Indog. *ə*, into *i*, Sk. पितर: (*pitáraḥ*), Gr. πατήρ (*patér*), Lat. *pater*, Goth. *fadar*, Old Ir. *athir*. (3) Change of the original *s* into *ṣ*, after *i*, *u*, liquids, *s* and *k*: तिष्ठति (*tiṣṭhati*), Av. *hištaiti*, Gr. ἵστημι, (*hístemi*) etc., (4) gen. pl. in नाम् (*nām*) of vowel stems.

2. The Armenian language is known to us only from the 5th century A. D. (1) Loss of *i* and *u* in syllables except at the end of a word, *hnoy* from *hinoy*, Sk. सनः (*sánaḥ*). (2) Change of Indo-German *n̥*, *m̥*, into *an* and *am*. (3) Change of original mediae in tenues, *tasn*, Sk. दश (*dáśa*).

3. The Greek language is known to us chiefly through Homer and some old inscriptions. (1) Change of *r̥*, *l̥*, into αρ, ρα, αλ, λα, (*ar*, *ra*, *al*, *la*). (2) Change of *j*, into *dj*. Skr. युगम (*yugám*), Gr. ζύγον (*zúgon*). (3) Dropping of *s* between sonants γένεος (*géneos*) Sk. जनासः (*jánāsaḥ*). (4) Perfect in *k*, ἕστηκα (*ésteka*), Sk. तस्थौ (*tasthau*). (5) Aorist in θην (*then*), ἐδόθην (*edóthen*).

4. The Italian languages:—known to us since 300 B. C. (1) Original *n̥*, *m̥*, become *en*, *em*. (2) *r̥*, *l̥*, become *or*, *ol*. (3) *f*, *þ*, χ, from original *bh*, *dh*, *gh*, ; *e. g. fero*, Sk. भरामि (*bhárāmi*). (4) *z* (later *r*) from *s* between vowels; *ezum* (now *ero*), Sk. असत् (*asat*).

5. The Germanic languages:—the oldest branch of which viz., the Gothic language, is known to us since the 4th century A. D., mainly on account of the translation of

* the Bible by Bishop Ulfila. (1) *n̥, m̥, r̥, l̥,* become *un, um, ur, ul*; *e. g.* H. Ger. *kumft*, Sk. गति: (*gâtiḥ*); (where अ (*a*) represents the sonant *m*. (2) The great sound-shifting, in accordance with what is called *Grimm's Law*; for examples see *supra*.

6. The Balto-Slavonic group is known to us not earlier than the 9th century, when a translation, of the *Bible* was made in one of the dialects of the group. (1) *n̥, r̥* become *in, ir* in one of the important branches. (2) Simplification of double consonants between vowels. (3) Some peculiarities of inflection.

7. The Keltic language, which once spread itself over the whole of western Europe and the British Isles now lives only in small tracts of land like Ireland, Scotland (where it is making room for English) and the Isle of Man. It shows *i* for indg. *ē, ri, li,* for *r̥, l̥,* etc.

8. The Albanian language known only since the seventeenth century from scraps of inscriptions, has so changed its character by borrowings from Romance, Slavonic and Turkish languages, that it has almost lost its individuality.

9. The Tokharian[1] language is only recently known to us through the Turphan expedition of German Scholars, during 1902–3 and 1904–5. A people of that name are known to us through the Greeks, who called them Τοχαροι (*Tocharoi*). They were a section of the Indo-Scythians; they are also known

* Date: middle of the 4th century B. C. The Germanic is sometimes called Primitive Teutonic from which the Scandinavian or Norse and Anglo Frisisian or maritime Teutonic are presumed to be descended. A passage in *Gunnlaugs Saga, ein var tunga i Englandi ok Noregi,* 'the same tongue in England as in Norway' points to the affinity between the Scandinavian and the old English languages. Ed.

1. The Tokharian language, was discovered in the first decade of the 20th century. It belonged to Turkistan in Asia. Some of its words have a hard *k*: *ku*=*dog*; while Indo-Germanic languages of the Eastern group show a palatal sibilant in that place: Sk. श्वन् (*śvan*). Ed.

to the *Mahābhārata*[1] as तुखाराः (*Tukhārāḥ*) and are mentioned together with खशाः (*Khaśāḥ*). What is more important is that their language shows affinities with the *centum* group; *e. g. kandh* = Lat. *centum* hundred; *śak* for *dek* = Lat. *decem* ten.

24. INTER-RELATIONS AMONGST THE GROUPS:—These eight groups, besides having a general affinity with one another, show a near relationship with one or several amongst themselves. First and foremost is the broad distinction that divides all the groups into two broader ones. This is based upon a sound-law that is the most celebrated of all such laws for its broadness. It is that certain throat-sounds, called by scholars the *palatals* in the original Indo-Germanic language, were changed into sibilants in several of the groups, while they retained their explosive character in the remaining groups. This could be easily seen from the word for 100 in the various groups. In *Sk.* शतम् (*śatám*), in Avesta *satem*, in Lith. *szimtas*; but in Lat. *centum*, (pronounce *kentum*), Gr. ἑκατον (*hekaton*), in Celt. *cet*, (from *kent*), in Germ. *hund*. (Goth. from Indo-Germanic. *kent*, by the first sound-shifting) in Tokh. *kandh*; or the word for 8 in the different languages; *Sk.* अष्टौ (*aṣṭaú*), Lit. *asztun*, Lat. *octo*, Gr. ὀκτω, (*ókto*), Old Ir. *ochtu*, Goth. *ahtau*· or such a word as Sk. श्रुतः (*śrutáḥ*), Old Sl. *slovo* (word), Gr. κλυτός, (*klutós*) Lat. *inclutus*, Old Ir. *cloth*, Goth. *hliuma*; O.E. *hlud*; or Sk. अश्र (*aśra*), Arm. *aseln* (needle), Lith. *asztrus*, Gr. ἄκρος, (*akros*), Lat. *ains*, Old. H. Germ. *ahiv*; or the word for ten, Sk. दश (*dáśa*), Arm. *tasn*, Gr. δεκα, (*deka*), Lat. *decem*, Old Ir. *dech*; or Sk. श्वन् (*śvan*),, Lith. *sunis*, Gr. κυνός (*kunas*), Lat. *canis*; compare also the word for twenty, Sk. विंशति (*viṁśáti*), Gr. εἴκοσι, (*eikosi*), Lat. *viginti*, Tokh. *uiki*; or Sk. विश् (*víś*) Av. *vis*, Gr. (F)–οῖκος, (*F*)–*oikos*) Lat. *vicus*.

Thus we see that the Indo-Aryan, the Armenian, th Albanian and the Litho-slavonic languages show a sibilant,

1. GRIERSON, the Pahārī language, *Ind. Ant.* 13. 146

where the Greek, Latin, Germanic, Celtic languages have a palatal sound (what is in Indian grammar called a guttural). To these must be added the recently discovered Tokharian language. These groups are called the *satem* group and the *centum* group respectively; the Avesta on the one hand and the Latin on the other are regarded as representatives of the two groups. In the treatment of the labiovelar also the two just named groups of languages differ. In the place of the labiovelars, the so-called *satem* languages substitute simple gutturals: *e. g.* πόθεν (*póthen*) (π for *qu* according to a special Gr. phonetic law). Lat. *quo, quis*, Goth. *hwas* (Eng. *what* for *hwat*), but Sk. क,चित् (च for क (*ka*) (*cit*) (*ca* for *ka*) according to the Sk. Palatal law), Alb. *ke* when, Lith. *kas*; Gr. ἕπομαι, (*hépomai*) Lat. *sequor*, Old Ir. *sechen*, but Sk. सचते (*sacate*), Lith. *seku*. One would almost be tempted to translate the distinction to the geographical sphere and say, that the Eastern group shows a *ś* or *s*, *k* or *c* where the Western group shows a *k* or *kwa*; but the newly discovered Tokharian language, which, although found in the East, belongs phonetically to the Western group, comes in our way. 100 in that language is expressed by the word *kandh*. Another grouping, not so evenly distributed, is caused by the falling together of the simple vowels *e, o, a* into *a* in the Indo-Aryan group, which therefore is to be distinguished from the remaining Indo-Germanic languages.

But the law or laws on which the distinction is based are at any rate broader. We cannot, for instance, put forward a different grouping, say like Sanskrit, Avesta, Gothic on the one side and the Armenian, Albanian, Greek, Latin, Celtic, Lithuanian and Slavonic on the other, simply because the treatment of the old Indo-Germanic *o* is common to the three first named languages; *e. g.* Sk. जम्भः (*jámbhah*), Gr. γόμφος, (*jómphos*), *O. H.* Ger. *chamb*; Sk. तत् (*tat*), Gr. το, (*to*), Lat. *istud*, Goth. *θata*; Sk. भरन्ति (*bháranti*), Gr. (Doric) φέροντι (*phéronti*) Lat *ferunt*, Goth. *bairand*, because it is not possible to say,

for instance, to which group the Slavonic language should belong, which shows *zab* for Sk जम्भ (*jámbha*), *berant*, for Sk. भरन्ति (*bharanti*) but again, *to* for Sk. तत् (*tat*); and it would land us into unnecessary difficulties, as a chance coincidence of a simple sound in a few Indo-Germanic languages only, but not in others, will necessitate redistribution into different groups. For the same reasons we cannot recognise a Germanic-Armenian group, simply because in both of them the treatment of the tenuis is similar; *e. g.* Sk. दश (*dáśa*), Latin *decem*, Gr. δέκα, (*déka*) but Germ. *taihun*, Arm. *tasn*; Sk. वेद (*veda*), Gk. οἶδα (*oida*), Lat. *video*, Old Sl. *vede*, but Germ. *wait*, Arm. *gitem*. HIRT actually makes a distinction between West Indo-German and East Indo-German.[1]

Except when we know for certain from other sources that the languages, which show certain marked resemblances with one another as against others, were in some remote period neighbouring languages, or at least that there was a free and close intercourse between them, we can only call these resemblances accidental ones. The assimilation of conjuncts in various modern languages, *e. g.* Prākrit *kk* for *kt* in मुक्क (*mukka*) for मुक्त (*mukta*), Italian *cotto* for Lat. *coctus* is to be explained in this way. Such resemblances are due to a general tendency observable in all modern languages owing their origin to the old Indo-Germanic languages. It is sufficient therefore to have recognised certain groups based upon broad principles of phonology.

25. INDO-BALTO-SLAVONIC AND GRAECO-ITALO-CELTIC GROUPS:—The close affinity of the Sanskrit & Avestan *i. e.* the Aryan group with the Lithu-Slavonic or Balto-Slavonic group, is incontestably proved and recognised by all scholars. But there has always been an attempt on the part of certain scholars to set up othergroups, *e. g.* the Graeco-Italian or the Italo-

1. HIRT, *Handbuch der Griechischen Laut-und Formenlehre* p. 22.

Celtic group. Now it is true that these resemblances cannot be called accidental or due to a general tendency. The resemblances observable in such closely associated languages as the Greek and the Italian, or the Italian and the Celtic, or the Celtic and the Germanic, connot indeed be so explained away. We can believe that the Greeks and the Italians had independently adopted certain new changes before they separated and descended from the Danube plains into Greece and Italy respectively. Just the same is the case with the Italians & Celtic people who dwelt amongst the Alps before separating west–and southwards. Certain peculiarities belong only to the Greek and Italian languages: *e. g.* (1) the change into hard aspirates of the middle aspirates of the old Indo-Germanic language. Sk. नभस् (*nábhas*), Gr. *νέφος* (*néphos*); भ्राता (*bhrātā*), Gr. *φράτωρ*, (*phrator*), Lat. *frater*; Sk. term. भिस् (*bhis*), Gr. *φιν* (*phin*), Lat. *bus*; (2) the formation of gen-plu. of *ā* stems by adding *asom* in the manner of pronouns; Gr. *θεάων* (*theaōn*) (from *θεασων*, *theason*), Lat. *mensarum* (*r* for intervocalic *s*); (3) treatment of *o* stems as feminines; Gr. *ηφηγος* (*êphegos*), Lat. *haec fagus*. On the other hand, certain changes are common to Greek, Italian and Celtic, showing that these were once close neighbours, and, after adopting certain common changes, separated, the Italo–Celts towards the South–West and the Greeks towards the South–East. The former, after living together for some time in the Alps, again separated, the Italians to the South, and the Celts to the West-North-West. Besides belonging to the great *centum* group, these three languages show other common peculiarities *e. g.* (1) they represent the original long liquids and sonant nasals by *rā, lā, mā, nā*. Sk. स्तीर्ण (*stīrṇa*), Gr. *στρωτός* (*strotós*), Lat. *stratus*; Sk. पूर्व (*pū́rva*), Gr. Doric *πράν* (*prán*), *πρᾶτός* (*pratos*); Sk. पूर्ण' (*pūrṇá*), Celtic *i. e.* Old Irlan; or Sk. ऊर्णा (*ū́rṇā*), Lat. *lāna*, (for vlāna); Sk. दाम्यति (*dāmyati*) Gr. *δμητός* (*dmētós*) (*η* from *ā*, *e. g.* *νεό-δματος* (*neó-dmatos*), Lat. *māteres, gnātus* Gallic *cintu-gnātus*; Sk. आति' (*āti*) water fowl, Gr. *υῆσσα* (*uêssa*) (*η* for *ā*); Sk. ध्वान्त (*dhvānta*), Gr.

θνητός (*thnêtós*) for Fθνᾶτος (*thfnātos*). They all drop the ancient intervocalic *j*. Examples are rare and disputed. HIRT[1] quotes Gr. χάσκω (*chásko*), Lat. *hiare*, and πτύω (*ptúo*) from πτυιω (*ptuio*).

a. Individual isolated resemblances do not warrant closer grouping:—If individual resemblances here and there could enable one to establish closer affinity between two languages, the treatment of the sonant nasal, for instance, in the Greek and the Aryan languages ought to suggest that these two perhaps were more closely associated than others. *e. g.* Sk. शतम् (*śátam*), Gr. ἑκατον (*hékaton*) (*a* for sonant nasal in both), but Lat. *centum*; Sk. गम्यते (*gamyate*), Gr. βαίνω (*baino*) (for *bamio*), but Lat. *venio*; Sk. दश (*dáśa*), Gr. δέκα (*déka*), but Lat. *decem*; Sk. मतम् मतिः (*matám matiḥ*):, Gr. ματος (*matos*) in αὐτόματος (*autó-matos*) but Lat. *mentis*; Sk. नामन् (*nāman*), Gr. ὄνομα (*ónoma*), Lat. *nomen*. Nor should the resemblance in the infinitive formation between the Greek and the Aryan group be taken as a conclusive proof of their close association: Gr, ἴδμεναι (*idmenai*), Sk. विद्मने (*vidmane*); in *Sk.* this infinitive is rare: Gr. δοῦναι (*donai*), for δυFεναι (*dufenai*), *Sk.* दावने (*dāvāne*); Gr. τιθέσθαι (*tithésthai*), Sk. पिबध्यै (*pibádhyai*) etc. The Latin too shows some of these forms; and the coincidence between the two languages is rather to be explained in this way, that the old Indo-Germanic language had a variety of these forms and only the Greek and the Aryan branches agreed in retaining some peculiar ones. The relation of the Greek with the Avesta would perhaps have to be recognised as closer, if the simple fact, that both represent an initial sibilant by the aspirate is taken into consideration: Sk. सप्त (*saptá*), Av. *hapta*, Gr. ἑπτα (*hepta*); Sk. स्था-तिष्ठति (*sthā-tiṣṭhāti*), Av. *histati*, Gr. ἵστημι (*histêmi*); Sk. सूकर (*sūkara*)

1 AIRT *Op, cit*, p. 191.

Gr. ὗs, (*us*) Lat. *sus*; Sk. सचते (*sácate*) Gr. ἕπομαι (*hépomai*). But this is impossible, because of such history of the wanderings of the various Indo-German stems as can now possibly be reconstructed.

b. The Tokharian, a centum language:—It is but right that some reference should be made to a newly discovered language, viz. the Tokharian. It was discovered among the mass of Buddhistic plays—rather fragments of them—as a result of the German Turfan expedition in Eastern Turkastan (1902-3 and 1904-5). From these, scholars have been able to gather some knowledge about the languages; it appears to be a *centum* language; *e. g. okadh = 8, okduk = 80; wiki = 20*, and *kandh = 100*. Words like *por*, Gr. πῦρ, (*pûr*) O.. H G. *fiur*, Eng. *fire, laks*, a kind of fish, O. H. G. *laks*, also show that it is a language similar to the Western group.

The speakers of this language were known to the Ancient Greeks, who called them 'Τοχαροι (*Tocharoi*)' a race recognised as part of the Indo-Scythians. They founded their power upon the ruins of the Graeco-Bactrian Empire about the 2nd century before Christ.

Besides these—now nine-principal languages or groups of languages there are others less known, now totally extinct. There is the language of the Phrygians who, together with the Armenians, migrated from the north of Greece into Asia Minor; that of the Venetors and so forth. It is not at all paying to devote more than passing attention to these, for their remains are so scanty and unreliable that nothing more could be said about them. It is enough to know that they were Indo-German idioms.

26. THE COURSE OF MIGRATION OF THE SPEAKERS OF DIFFERENT GROUPS:—It is these affinities of certain groups that have enabled us to guess the general course of the migration of the Indo-Germanic people. The migration of the big-

gest of them *i. e.* the Germanic group has gradually taken place in historicial times. We know, for instance, how the Angles and Saxons migrated from their home in the heart of Germany to Great Britain. When they appeared in England, the country belonged to the Picts and Scots. The same was the case of the habitation of Iceland to the north of Great Britain. The Danes, the Swedish and the Norwegians also migrated from their home in middle Germany. History has told us part of this only ; but comparative study of languages keeps no secrets. It tells us that all these were once one people and spoke one common language ; and linguistic science, aided and supplemented by early history where possible, has shed astonishing light over these questions.

Coming nearer home, we find the Indian Aryans entering India through the Khyber pass and fighting their way across the country of the seven rivers. The earliest historical and semi-historical document tells us that in those days, *i. e.* some three thousand years before the Christian Era, they had not quite settled themselves as yet along the banks of the Jumna and the Ganges. Their immigration into trans-Vindhyan India is a matter of still later date and is sung by the people amongst their oldest legends. Comparison between the Vedic Sanskrit and the Avesta takes us still further back, and points to a hoary past, when the speakers of these two languages were living together in the region between the Caspian Sea and the Sea of Aral or north of Persia and Afghanistan. That this place too was not their original home, but that they, together with the speakers of the Balto-Slavonic languages, must have had a common home somewhere in North mid-Russia is made clear by the resemblances between the Indo-Aryan and the Balto-Salovonic languages, two sub-groups of the great *satem* group.

The spread of the Latin idioms or Romance languages is an event of still later date. We know how the language

of the conquering Romans accompanied them wherever they conquered and succeeded in ousting less finished idioms. The history of the dispossession of the Celtic, however tragic it must have been, is a very interesting study from the linguistic point of view. But the language that travelled from Rome into Portugal, Spain, France, and Roumania was itself a newcomer in Rome. It had got in there, after its speakers and the speakers of the Celtic language had parted from the mid-Alpine region. And this too was not their original home.

They and the speakers of the Greek dialects possessed linguistic affinities, which point to a very close contact. Such was possible to both only on the plains of the South-Danube. From here the Greeks descended through Macedonia into the several isles of Greece, and their epic bears full testimony to this fact. One branch shot eastwards and settled along the coast of Asia Minor.

The Celtic wanderings, too, are as interesting as the others. After occupying the greater portion of France, they shot across the Channel into part of England, Wales, Scotland and Ireland. The Celts in France abandoned their language just as the Parsis in India abandoned theirs. But the Irish still speak their old language with much feeling.

We have roughly followed the course of the wanderings of the several branches of the Indo-German family. After tracing these, we ask ourselves whether this is all. It cannot of course be all. The Germans on the course of the upper Danube, the Italians and Greeks on the lower Danube, and the Indo-Aryans and Balto-Slavs in mid-Russia, must have migrated from a common home, if the similarity of the idioms they speak has got any value. Where could it have been?

27. THE ORIGINAL HOME OF ALL :—There have been several attempts to answer this question, and there will be

many more without perhaps settling the question once for all. For, the means to arrive at a solution are wanting, and what one can do in their absence is mere guess work. So many points in the history of those languages must have been irrecoverably lost, that what has remained to us is perhaps only a fragment. The same is the difficulty in the reconstruction of the original language. No one knows how many idioms are lost without any trace, whose discovery might have revolutionized our linguistic ideas, as the discovery to Europe of the Sanskrit language actually did during the first half of the 19th century. No one also knows how many languages will be discovered like the Tokharian.

Still the question of the original home can be negatively answered. It could not have been France, it could not have been India, nor Iran, nor Central Asia. A long stretch of land between the North Sea and the Sea of Aral comes into consideration in this respect. But it is likely that there was still a smaller home. Some claim that it was in the Arctic regions in the extreme north of Russia or Russian Siberia. Others believe that it must have been in Scandinavia, which theory Lokamānya TILAK[1] has controverted, and which is impossible from our tracing of the migration of the Germanic branch of the Indo-Germanic group. So far at any rate is clear, that the original home must have been somewhere to the North-east of Hungary and to the North of the Black and Caspian Seas. Further than *this* we are not justified in saying in the present state of our knowledge. KEITH[2] has most recently dealt with the whole question at length.

28. CIVILIZATION AS DISCLOSED BY COMPARISON OF LANGUAGES:—Just as from the comparison of several languages, we are able to trace one common language called the

1. TILAK, *Arctic Home in the Vedas*, p. 418

2. Article on the Indo-Europeans in the *Bhandarkar Memorial Volume.*

Indo-Germanic language, their common parent, in the same way we can conclude that that language must have been spoken by one people whom we are pleased to call primitive Indo-Germanic people, and thus we can form an idea of the culture of that people. Comparative Philology is the first means to that end, because that science determines the stock of words that belonged to that language, and thus makes it possible to know what ideas had even then found expression.

When we perceive that our word गाय (*gāya*), Sk. गो (*gó*), corresponds exactly to the words Gr. βόυς (*bóus*), Lat. *bos*, Irish *bo*, old Slav. *govedo*, or our word पिता (*pitā*) to the Gr. πατη'ρ (*patér*), Lat. *pater*, Goth. *fadar*, Irish. *athir*, or our Mar. जूं (*jũ*), Sk. युगम् (*yugam*), with *Gr.* ξυγόν (*zugón*), Latin *jugum*, old Slav *igo*, we are justified in drawing a conclusion that the objects, ideas and customs represented by these and such other words were already primitive Indo-Germanic. We are here not mere linguists but naturalists, antiquarians, and sociologists in one.

The aid of archaeology:—But it is not always that all Indo-Germanic languages possess the same word. Sometimes only two or three of them have a word for an idea common amongst themselves. Here archaeology helps us. We shall look into the periods it puts forward, and see whether the characteristics of each discovered by that science, agree with the results of our science.

(*a*) *Characteristics of the Stone age*:—People lived in houses in raised stockades of wood, which constituted the chief material; the weapons were of stone. The culture represented by this is the same as our linguistic historical studies would have us believe. This is subdivided into palaeolythic and neolythic.

(*b*) *Metal age*:—Copper, they say, was the first metal to be discovered. Sk. अयस् (*aáys*), Lat. *aes*, Goth. *aiz-erz*, Ger.

aehern. This was melted and poured into certain weapons (1) Sk.परशु (*paraśu*), Greek πελεκυς (*pelekus*), (2) *Sk.* असि (*asi*), Lat. *ensis.* (3) *Sk.* आरा (*ārā*), O. H. G. *ala,* Germ. *apla.*

The original Indo-German period could therefore be characterized as stone-copper period.

Moreover, the existence of many important items *e. g.* the domestic animals, the arts of sowing, spinning, weaving etc. is conclusively proved—by comparing the several Indo-Germanic languages—during the primitive period of the Indo-Germanic language. Such other animals, things and objects, as for instance, the ass, mule, cat or rye, hemp etc. which are not proved to have existed in this period are also absent from the oldest phase of the Indo-Germanic language.

The history of *iron* is very interesting. The Teutonic languages borrowed it from the Celtic: Germ. *eisen* Goth. *eisarn,* Kelt. *iarn,* while yet the intervocalic *s* was present in the Keltic *isarno.* Very likely, together with the name for iron, the Germans borrowed the name of the spear from Celts: O. H. G. *ger,* Celt, *gaiso,* Irish *gai.* Ultimately, the Germans carried the word to the Romans, Lat, *gaesum,* and to the Greeks, Gr. γαισός (*gaisós*). Archaeology, in perfect accord with this, has proved that the oldest iron-fields in Bornholm or Hallstatt, were of pre-Roman days and to a great-extent, point to a Celtic possession.

Archaeology and linguistics therefore must go hand in hand and aid each other in these things. But the province of archaeology is necessarily limited, as its sole basis is the things that are preserved; food and drink, on the other hand, or how milk-preparations were made, or how the agricultural instruments were prepared,—on these points archaeology is necessarily silent. And, what is most important, archaeology has not told, and can never tell us, any thing definitely about the primitive family, the state, law and religion, in short, about all that we understand by mental culture.

In these cases comparative linguistic study is the only guide. If, for instance, we find a particular institution say marriage or church, or particular facts and realities *e. g.* an immoral act like theft, described and severely punished, in all the Indo-Germanic languages, we conclude that it must have been so with all those peoples in pre-historic times.

Compare for instance *Sk.* विधवा (*vidhávā*), Lat. *vidua*, Goth. *widuwo*, Germ. *witwe*, English *widow*; there is, however, no corresponding word for *widower*. The very word *widower* is based upon the old word *widow* and was not independently used; *e. g.* Sk. विधुर (*vidhura*) is an adj. and means *bereaved*. We see, therefore, what is meant by this: the institution of widowhood must have been pre-historic; and in such a way, that widows were either not allowed to remarry, or great obstacles were placed in the way of their marriage, but none in the case of men.

Take *Sk.* अविः (*áviḥ*), Gr. (ὄις). Lat. *ovis*, O. H. G. *ou*, Engl. *ewe*. It shows that this domestic animal was already known in old Indo-Germanic times. Goth. *hlifan*, Lat. *cleptor*, Gr. κλέπτω (*klêpto*), show that theft also was a time-honoured institution! These and other identities clearly tell us that the institutions and facts, thus expressed by a common term, in all these Indo-Germanic languages, must have belonged to a period before their separation.

We shall now try to paint a picture of the culture of the people, and following SCHRADER, who is the best authority on the subject, deal with the following points: (i) Domestic and communal life. (ii) Habitation. (iii) Drink. (iv) Industry and commerce. (v) Divisions of time. (vi) Family. (vii) Tribes and nations. (viii) Blood revenge. (ix) Religion.

1. *Domestic and communal life.* The first important fact is that the names of domestic animals, excepting the ass, mule and cat, are found in the European as well as the Asiatic Indo-Germanic languages.

Sk. उक्षन् (*ukṣán*), Goth. *aúhsa*, Ger. *ochse*; Av. *staora*, big cattle, Goth. *stiur* Ger. *stier*; Sk. गो (*gó*), Gr. βόυς (*bóus*), Lat. *bos*, Ger. *kuh*; Sk. सूकर (*sūkara*), Gr. σûς (*sûs*) Lat. *sūs*, Ger. *sau* and *schwein*; for अवि: (*áviḥ*) see above. Sk. अश्व (*áśva*), Gr. ἵππος (*híppos*), Lat. *equus*; Sk. श्वा (*śvá*), Gr. κύων (*kúon*), Lat. *canis*, Ger. *hund*. Then the word for cattle in general is Sk. पशु (*páśu*), Lat *pecus*, Goth. *faihu*. Ger *vieh*, Eng. *fee*. These also show the acquaintance of the pre-historic Indo-germans with cattle-breeding. पशु (*páśu*), was to them also *wealth*. In Veda गवेषण (*gavéṣaṇa*), गविष्ठि (*gáviṣṭhi*), means search for wealth, also battles for its possession. In Lat. *pecunia* means money; this is taken over into the English language in the form *pecuniary*.

In hoary days the dowry was paid in cows; Dakṣiṇā was paid to Brahmins in cows. Even as late as in the Upaniṣads[1] we find the old custom preserved, when जनक (*Janaka*) wanting to settle a dispute says: ब्राह्मणा भगवन्तो वो यो ब्रह्मिष्ठः स एता गा उदजताम् (*brāhmaṇā bhagavanto yo vo brahmiṣṭhaḥ sa etā gā udajatām*) 'whoever among you, ye revered Brahmins, knows ब्रह्मन् (*brahman*) best might carry away these cows'.

The main subsistence was also on cattle and their proudce. The Vedic word गवाशिरम् (*gávāśiram*), food mixed with some form of milk, गव्य (*gávya*) and the name given to the north Europeans of old, Gr. γαλακτοτ-ροφοῦντες (*galaktot-rothoûntes*) 'those who subsist on milk,' also point to the same thing. Cattle-flesh prepared in a certain way is called in Sk मांस (*māṁsá*), Goth. *mimz*; Sk. मज्जा (*majjā*), Av. *mazga*, O. H. G. *marg*. Food is cooked and boiled; Sk. पच् (*pac*), Gr. πέσσω (*péssō*,) Lat. *coquo*, Ger. *backen*, Eng. *bake*. Germ. *mark* was also used as food. A common word for milk is found only in the western Indo-German languages; Gr.

1. *Bṛhadāraṇyaka Upaniṣad III 1-2*

γα'λα (*gála*) milk and αμλεγω (*amelgō*), Lat. *mulgeo* and Ger. *melken*. But for milk preparations we have Indo-German words; Sk. सार (*sāra*), Lat. *serum*, Gr. ὁρος (*óros*); Sk. आज्य (*ājya*), Lat. *unguen*, Ger. *anke*; Sk. सर्पि: (*sárpiḥ*), Gr. ἔλφος (*élphos-helphos*) (butter), Ger. *salbe*.

Cattle served them for dress also. The Germans are described by Cæsar as clad in hides. The Greek word for them ρ'ηνοφορευς (*r'enophorĕs*) 'wearing sheep skin' is connected with Sk. उरण (*úraṇa*), Gr. ἀρήν (*árén*,), a lamb. They knew the use of wool; Sk. ऊर्णा (*ū́rṇā*), Lat. *vellus*, Goth. *wulla*, Ger. *wolle*, and also how to weave it; *e. g.* Gr. ὑφαίνω, (*húphaíno*), O. H. G. *weben*, seen in the Sk. word (ऊर्ण)-वाभ (*ūrṇa*)-(*vābha*).

But besides cattle-rearing, they also carried on agriculture, which perhaps was new to them; Gr. ἀρόω (*árō*), Lat. *arare*. It is significant to note that the Aryan branch has not much in common with the European branch in this respect, i. e. in so far as words for seed, instruments etc. go. Sk. अज्र (*ájra*), Lat. *ager*, Ger. *acker*, Eng. *acre*, although phonetically identical differ slightly in meaning. The names of different kinds of corn and trees *e. g.* Sk. भूर्ज (*bhūrja*) Ger. *birke*, Eng. *birch*, are also not common to the two groups. We may assume therefore that agriculture was taken up later by the Eastern than by the Western branch.

Hunting appears to be a common pastime, known to the pre-historic peoples living together. Some wild beasts then known are Sk. वृक: (*vṛ'kaḥ*), Gr. λύκος (*lúkos*), Ger. *wolf*; Sk. ऋक्ष (*ṛ́kṣa*), Gr. ἄρκτος (*árktos*); Sk. उद्र (*udrá*), Gr. ὕδρος (*húdros*), Ger. *otter*, and other game is Sk. शर्श (*śasá*), Ger. *hase*; Sk. ऋष्य (*ṛ́ṣya*), Ger. *alces*. For oriental wild beasts there is no common word.

II. *Habitation.* The idea of a country looked upon as motherland, is a much later one, and this is but natural in the

case of a people that is yet in a migratory state. The idea of a clan, Gr. γένος (*génos*), जन (*jana*), tribe, people, विश् (*viś*), or Gr. οἶκος (*oikos*), was more primitive and therefore more predominant. We have यादवम् जनम्[1] (*yādvam janam*), and पाञ्चजनी विश्[2] (*pāñcajanī viś*) in the *Ṛgveda*: thus also we have the Bharatas first, and then their country भारत (*Bhārata*) or भारतवर्ष (*Bhāratavarṣa*).

The idea of village, town, city, etc., developed later. The word पूः (*pūḥ*), Gr. πόλις (*pólis*), originally meant only a *burg*, a *castle*; *e. g.* आयसी पूः (*áyasī pūḥ*), a citadel of copper, what among the Greeks is known as ἀκρόπολις, (*akrópolis*), fort Lith, *pilis*, Let *pilsseta*.

The same is expressed by the old Celtic *dunum*, (found in names like Novis-dunum) which is also found in English *town*, Ger. *zaun*, which word means *hedge*. To these corresponds in meaning the old Slavonic *gores*, a city *e. g.* Ivangorod, Novgorod, the Ger. *garten*, English *garden*, from the same word, originally meaning a plot of ground with a hedge surrounding it. The village then must have first consisted of a number of such plots or castles within one definite area. Such a village is called in Goth. *weihs*, Lat. *vicus*, Sk. विश् (*viś*), Av. *vis*.

The people lived in houses with doors and posts. Sk. दम (*dáma*), Gr. δόμος (*dómos*), Lat. *domus*; Sk. द्वार् (*dvār*), Gr. θύρα (*thura*), Lat. *fores*, Goth. *daur*, Ger. *tür*. Eng *door*; Sk. स्थूणा (*sthūṇā*), Gr. στήλη (*stélē*), O. H. G. *stollo*, Ger. *stollen*; Gr. στέγος, τέγος (*stégos, tégos*), O. H. G. *dah*, Ger. *dach*, Eng. *thatch*. This gives an idea of roofed houses, supported by pillars. They had open fire, and cooked in earthen or iron utensils. Sk. चरु (*carú*), Old Ir. *core*, old Nors. *hverr*; Sk. उखा (*ukhā*), kettle, Lat. *auxilla*, Ger. *ofen*.

1 *Ṛv.* VIII 6, 48.
2 *Ṛv.* VIII 63, 7.
3 *Ṛv.* VII 15, 14.

III Drink :—Much need not be said regarding this. Sk. मधु (*mádhu*), Av. *madu*, Gr. μέθυ, (*méthu*), O. H. G. *metu*, Eng. (*mead*) was the common drink. It must have been sweet, as the word modified denoted sweet; Gr. μέλι (*méli*), Lat. *mel*, Goth. *milop*. Sk. सोम (*sóma*), Av. *haoma*, stands by itself. It has not been possible to identify the plant or the stuff that was brewed and drunk with so much relish.

IV Trade and Industry:—That even in pre-historic times of which we are speaking, there must have been some commerce between village and village or town and town, is clearly shown by antiquarian research. The science of language also points to the same fact. Commerce must have consisted chiefly in barter[1], and been carried on by strangers who were often hated; *e. g.* the पणि[2] (*paṇi*) in the *Ṛv.* who are called usurers, ungodly and the like. The word is generally related to Gr. πέρνημι (*pérnēmi*).

Sk. क्रीणामि (*krīṇāmi*), Gr. πρίαμαι (*príamai*) to sell; for the price paid we have Sk. वस्न (*vasná*), Gr. ὦνος (*unos*), Lat. *venum*. This price was measured in cows, if no barter was possible. The German word *kaufen*, Old Ger. *koufan*, meant both to buy and sell.

Sk. मिमामि (*mimāmi*), Gr. μέδιμνος (*médimnos*), Lat. *modius*, seen in Eng. *commodity*, Ger. *messen* are common words showing that the people could measure things. Words like वितस्ति (*vitasti*), Gr. ὠλένη (*ōlénē*), Ger *fuss*, show that parts of the body were used as measure. Metals were known from the earliest times, but whether they were used in trade is a question. Sk. लोह (*loha*), Av. *rôd*, Lat. *raudus*. For copper and परशु (*paraśú*), Gr. πέλεκυς (*pèlekus*), see above. The Indo-Germans knew many arts and bartered away or sold the products. Besides weaving, they also knew sewing; Sk. सिव् (*siv*), Lat. *suo*, Goth. *siūjan*; they made bow-string; Sk.

1 ZIMMER, *Altindisches Leben*, p. 257.

2 *Ṛv.* VIII. 66, 10. Especially MACDONELL and KEITH *Vedic Index* 1. 47.

ज्या (*jyā*), βιός (*biós*); could file arrows, Sk. इषु (*iṣu*), Gr. ιός (*iós*). They understood either to make out of stone or copper such instruments as Sk. क्षुर (*kṣurá*), Gr. ξυρόν. (*khurón*). Sk. असि' (*asi*), Lat. *ensis*, sword; Gr. ἀξινη, (*ákhine*), Lat. *ascia* Goth. *aquizi*, *axe* and to prepare mud for making pots: Sk. दिह् (*dih*), Lat. *figulus* the potter, Goth. *deigan*; and to make out of it Sk. चरु (*carú*), Old Ir. *core*, old Nors. *hverr*, a pot and ऊखा (*ūkhá*), Lat. *auxilla*, Ger. *ofen*, stove. It is perhaps too much to conclude from this that the industries developed separately and that there were smiths and goldsmiths, potters and other artisans. Yet is Sk. तक्षन् (*tákṣan*), Gr. τέκτον (*tékton*), carpenter, a very old artisan of the Indo. Germans. For common numerals see above.

V Divisions of time:—The year was the longest unit; but it seems to have originally been named after the season. The first name it received was after winter, Sk. हेमन्त, (*hemantá*), हिमा (*himá*) Gr. Χειμών (*kheimón*), Lat. *hiems*, winter. The Latin words *bimus*, *trimus* meaning two and three years old, come from *hiems*; the same is the case with Gr. Χιμαρος (*khímaros*), a goat, which originally meant an yearling. Even the Indian Aryans spoke[1] of शत (*sátaṁ*) हिमाः (*himāḥ*), hundred winters, *i. e.* hundred years; although in other places, they preferred to name the year after autumn *e. g.* शतं नो रास्व शरदः (*śataṁ no rāsva śáradaḥ*)[2]. The old name for summer, which the Indian Aryans called वर्षा (*varṣā*) in conformity with the climatic conditions of the land they entered, is still to be seen in the word समाः (*samāḥ*) which originally meant half year and then a year. Sk. समा (*samā*), Av. *ham*, Arm. *amarn*, Ir. *sam*, O. H. G. *sumar*, Eng. *summer*. It is remarkable that Sk. वसन्त (*vasanta*,) Gr. ἔαρ (*éar*), Lat. *ver* spring, was never raised to that dignity. But a common independent word for the year was already there; Sk. वत्सर (*vatsara*,) Gr. Fέτος

1. *Rv*.. II. 33, 2; V. 54, 15.
2. *Rv*.. II. 27. 10.

(*Fétos*), Alb. *viēt*, Sk. परुत् (*parut*,) उत् (*ut*) from वत् (*vat*) in वत्सर (*vatsara*), Gr. πέσρυσι; (*pesṛúsi*) last year.

The month was already known to be the next smaller division, as the day and night was the smallest. Sk. मास् (*mās*) also चन्द्रमास् (*candramās*), Gr. μήν (*mḗn*) μήνη (*méne*) moon), Lat. *mensis*, Goth *mēna*, Ger. *monat*, Eng. *month*, and *moon*. The names of months were evolved separately and later by each people, or rather by the two groups of people. There is also no common word for *week*. Words for *day* and *night* are common; Sk. दाघ (*dāgha*), in निदाघ (*nidāgha*), Ger. *tag*, Eng. *day*; Sk. नक्तम् (*naktam*), Gr. νύξ (*núkh*), and Ger. *nacht*, Eng. *night*.

For divisions of the day, there were expressions of a rather primitive kind. *e.g.* संगवं (*saṁgavá*) *midday*, lit. the time when cows came together; or Gr. βου-λυτόν-δε (*boulutón-de*), the time when cows are let loose; or Irish *im-buarach*, morning *i. e.* the time the cows are bound.* The names of days, however, show a reciprocation which is not at all found in names of months.

VI The Family:—All the branches of the Indo-Germanic family of languages show the family relationships and names indicating them in the same developed state. Besides words for father, mother, brother, sister, and grandson, which we saw were common to all branches, there are a few others worthy of note.

Sk. पितृव्य (*pitṝvya*), Gr. πατρώς (*patrós*), Lat. *patruus*, Ger. *vetter* (orig. uncle)

,, स्नुषा (*snuṣā*) ,, νήος (*néos*), Lat. *nurus*, Ger. *schnur*, O.H.G. *snur*

,, देवर् (*devár*) ,, δαήρ (*daér*), Lat. *levir*, O. H. G. *zeihhur*

,, यातरः, (*yātaraḥ*) ,, εἰνάτερες (*eínáteres*) Lat. *janitrices*

* The most auspicious point of time in India is still the गोरज मुहूर्त (*goraja muhūrta*). Ed.

Amongst the pre-historic Indo-Germans, marriage appears to have taken place in two ways: either by buying,–a form preserved and mentioned in the *Manusmṛti*[1]; or by carrying away the girl by force, also mentioned in ancient Law-books.[2] पाणिग्रहण (*pāṇigrahaṇa*) or taking of the hand appears to have been the central part of the marriage. The bride was carried away from her father's house; she is called Sk. वधूः (*vadhūḥ*), Av. *vadu*; Old Rus. *woditi* which means carrying away of a bride. *Cf.* also Sk वहतु (*vahatú*) marriage, Av. *vaz.*

Man and wife filled a very important position in the old family system. The man is the master of the house *e. g.* Sk. पतिः (*pátiḥ*), Gr. πόσις (*pósis*), Goth. *faþs*, contained in *bruþfaþs* bride-groom; Sk. दम्पती (*dámpatī*), Gr. δες–πότης (*des-pótes*), for δεμς πότης (*dems-pótes*). The wife correspondingly is called Sk. पत्नी (*pátnī*), Gr. πότνια (*pótnia*). Their chief aim was by progeny to continue the race, and make for bliss in the other world. Such being the importance attached to progeny, we find prevalent in ancient India, as in Greece, Italy, Germany and Scandinavia, the practice of what is called नियोग (*niyoga*).[3] It is needless to go deeper into details of this subject, and to indicate the position in the family of the several relations, who were called in Sk. बन्धुः (*bándhuḥ*), Gr. πενθερός (*pentherós*), in a slightly different sense.

VII. *Tribes and people*:—The common word for people is Sk. जन (*jána*), Gr. γένος (*génos*), found also in English *generic*. The Gr. δήμος (*dêmos*), ἔθνος (*éthnos*), φῦλον (*phûlon*), as also the O. H. G. *liute*, Ger. *leute* find no counterpart in the Aryan group. We already know the word[1] Sk. विश् (*viś*), Gr. οἶκος (*oikos*). These people or tribes had their own leaders and

1 3. 29.
2 *Manusmṛti* 3. 33.
3 *Manu* 9. 59 ff.

were often recognised by their names *e. g.* यादवम् जनम् (*yādvam janam*) (*see supra*). The leader of the clan or people was विश्पति (*viśpati*), Av. *vis-paiti*, Lith. *wiesz-pats*; if several clans combined, a राज् (*rāj*), Lat. *rêx*. This leader or king was often elected[2] by the people in an assembly called Sk. सभा (*sabhā*), Goth. *sibja*, Ger. *sippe*, but more often he was hereditary[3]. But still he respected[4] the सभा (*sabhā*), or समिति (*samiti*) of the people where public questions were discussed. It is always to be understood, as is so clearly demonstrated in the *Dāśarājñya hymns* (ten-kingś-fight) in the *Ṛgveda*, that these tribes by no means lived always in peace with each other.

The other fact that these tribes, races, or peoples did not preserve their solidarity, but mixed even with the aborigines, is equally obvious. The question of race-mixture therefore need not detain us.

VIII Blood revenge :—This is a remarkable feature of the primitive people. Life was taken for life with the unfailingness of a natural law. The idea is conveyed by such words as Sk. चि (*ci*), चयते (*cáyate*), अपचितिः (*apacitiḥ*), Gr. τίσις (*tísis*), and Av. *kaēnā*, Ir. *cain*. Gr. ποινή (*poiné*). Of course the duty of revenge fell upon certain very close

1 We cannot agree with the difference pointed out by ZIMMER *Altindisches Leben*, p. 15 between विश् (*viś*) & जन (*jana*). In Veda they are synonymous.

2 *Ṛv.* X. 124, 8 विशो न राजानं वृणानाः (*viśo na rājānaṁ vṛṇānāḥ*) like people electing their king.

3 See the long line of वयश्व (*Vayadhraśva*), दिवोदास (*Divodāsa*), and सुदास् (*Sudas*) पैजवन (*Paijavana*)

4 *Ṛv.* IX. 92, 6 राजा न सत्यः समितीरियानः (*rājā na satyaḥ samitīriyānaḥ*) like a good king going to assemblies.

The daughter of the family also appears to have had the duty of milking the cow allotted to her; and from Skr. to Swedish the word for daughter is the same, with some phonetic changes: Skr. दुहितृ (*duhitṛ*), Gk. *thyater*, Goth. and Mod. Eng. *daughter*, Germ. *tochter*, Sw. *dotter*, Armenian *dustr*, Dutch *dochter*, Dan. *dotter*. Ed.

relations. But there was always the possibility of escaping revenge by payment of a fine or *wergeld*. This idea is contained in Sk. वैर (*vaira*), M. H. G. *were*, O. Russ. *vira*. The original meaning of the word *wergeld*, is man-money *e. g.* Sk. वीर (*vīra*), Lat. *vir*, Goth. *wair* (*cf. Danegeld*).

IX. Religion:—Antiquarian research and linguistics teach us that even the most primitive people believed in a soul and a life after death: thus Sk. आत्मन् (*ātmán*), O. H. G. *ātum*, Ger. *atem*. The passing of the soul[1] was celebrated in ceremonies common to all the Indo-German people, with slight differences. The chief difference is that the Indians *burned* their dead, while the Western people *buried* them.

Another feature of the religion of these primitive people is ancestor-worship. Daily service offered to them is called in Sk. पितृयज्ञ (*pitṛyajña*). The Śrāddha ceremony finds a counterpart in some old Russian customs of feasting the poor on the day of fathers.

Although there were many Gods, the idea of a God-Father was even then known: Sk. द्यौः पिता (*dyaúḥ pitā*), Lat *Jupiter*, Gr. Ζεύσπατήρ (*Zeús-patēr*). There was also a mother of Gods, the अदिति (*aditi*), of the *Ṛgveda*. Fire was due to them both, and was worshipped with oblations. Sk. अग्नि' (*agni*), Lith. *ugnis*, Russ. *ogon*, Lat. *ignis*. Sk. उषस् (*uṣás*), Gr. ἔος (*ēos*), Homeric form ἠώς (*éos*), Attic ἕως (*éos*), Lat. *aurora* was amongst the many luminaries that were worshipped. Among the common words for God were Sk. देव (*devá*), Lat. *deus*, Lith. *diewas*. Another deity worshipped is वरुण (*váruṇa*), Gr. ὠρανός (*Oúrnós*).

The worship was by sacrifice, and was elaborate, and required a priest-class that was in the nature of things predominant.

1. *Rv.* X, 14 and 16.

The ethical value of the worship of gods was perhaps not very great. The gods are mighty, full of dazzling light, and therefore to be feared, always to be held in awe. Epithets like अतिथिं जनानाम् (*atithiṁ janānām*), the guest of men, and Gr. Ζεύς (*Zeús*), ξένιος (*Kh'enios*), the protector of hospitality, are rare. Of all the Vedic gods, only वरुण (*váruṇa*), impresses us by his moral grandeur.

Priesthood was perhaps even then existent, although not so powerful as it became later on, with most of the branches, after they separated by migration from their original home.[1]

1 See Appendix II.

PART III

THE INDO-IRĀNIAN OR ARYAN GROUP

29. ARYAN GROUP:—We enter upon the third great division of our subject, the Aryan group. To this group belong, as we have already seen, the Vedic language with its developments viz. Pāli and the Prākrits, called middle Indian dialects, and the modern vernaculars; and the old Irāṇian, consisting of the language of the Avistāk or the oldest scriptures of the Pārsis or fire-worshippers, called Avestā, and that of the Inscriptions of king Darius and his followers.

The story of the discovery of the Irāṇian language to the world of scholars is interesting, although perhaps not germane to our subject. The texts of the Avesta were taken to Europe in the first quarter of the eighteenth century, but no one could read them, until an enthusiastic Frenchman, ANQUETIL du Perron sailed for India in 1754, and studied the language and character with the Pārsī priests at Surat for about eight years. He published a text and translation in 1771.

The study of the language by Europeans dates from the close of the eighteenth century; and although the close affinity between the two languages was noticed by different scholars, the exact relation between the Sanskrit and the Avesta was pointed out in 1826 by the Danish scholar RASK, who had travelled in Persia and India, and had taken back to Copenhagen many Mss. of Avesta and Pahlvi works. It was indeed when Sanskrit scholars began to study Avesta that the relationship was fully discovered and finally settled.

The results of that labour are embodied by BOPP in his comparative grammar. Now-a-days in Europe, just as much importance is given to Avesta studies as was being given to Sanskrit in the latter half of the last century; and, DARMESTETER, BARTHOLOMAE, SPIEGEL, HÜBSCHMANN, JUSTI, MILLS, and GELDNER are now among the most famous Avesta scholars.

The Avesta is the language of the collection of only books of the Zoroastrians. Part of this collection is written in a dialect called Gāthā-Avestic, which is older than the other one, and bears very close affinity to the language of the Vedic hymns. It is impossible to determine the date of the language or the works written in it, just as is the case with our Veda. But so much is certain, that the oldest part, at any rate, does linguistically in no way fall far behind the Veda in antiquity.

While speaking of the Avesta or language of the Zoroastrian Veda, we cannot lose sight of the other old Irāṇian dialect, namely that represented by the cuneiform inscriptions of Darius, called by scholars old Persian dialect only. These two are supposed to form the Eastern and the Western forms respectively of the old Irāṇian language. The old Persian was the court language of Persian kings from Darius I. (B. C. 521–485) and is found in the inscriptions of several kings of his dynasty, called the Achemenian dynasty.

A younger form of old or Achemenian Persian is the Pahlvi, preserved for us in the inscriptions of kings of the Sassanian dynasty. The oldest of such inscriptions is the one dating in the reign of Artasatar-i-Pāpakān or Ardashir (226–241 A. D.). It is in a form of this Pahlvi that commentaries on the Avesta are written. In fact the whole of the old Avesta literature consisting of *Yasna*, *Vispered*, and *Vendidad* was rendered into Pahlavi. This is called mid-Irāṇian by the linguists.

Thirdly comes what is called the modern Iranian, dating from about the 9th century A. D. It includes Persian proper, Kurdish, Afghan or Pashto, Ossetish, Beluchi or Baloch, Ghalcha and some minor dialects; including the so-called Pāmir dialects.

The relation of these three stages to one another is the same as the relation of the Vedic or old Sanskrit to the Pali and Prakrits or Mid-Indian and the present day Indian dialects or the Modern-Indian. What is more remarkable is that the relationship between the older or Gāthā-Avestan and new-Avestan finds a parallel in the relationship between Vedic and classical Sanskrit.

How closely allied the Avesta is to old Sanskrit, although individually quite distinct from the latter, is clearly seen from a passage like the following:—

'Təm amavantəm yazatəm । Sūrəm dāmōhu səviśtəm
miθrəm yazai zaoθṛdbyō

which, with certain phonetic changes, gives the following almost Vedic version:

तं अमवन्तं यजतम् । सूरम् धामसु सविष्ठम् ।
मित्रं यजे होत्राभ्यः—

(*taṁ amavantaṁ yajatam । sūram dhāmasu saviṣṭham*
mitraṁ yajai hotrābhyaḥ)

As JACKSON[1] properly remarks 'Almost any Sanskrit word may be changed at once into its Avestan equivalent or *vice versa*, merely by applying certain phonetic laws.' Such very close affinity between two indo-German languages is found in this branch only.

1. *Avesta Grammar*, Intr. p. xxi.

30. THE PHONOLOGY:—The Avesta agrees with the Sanskrit in a general way. Agreement of vowels both in quality and quantity is shown by equations like the following:

		Sk.	Av.	Gr.
(अ)	(*a*).	अश्वः (*áśvaḥ*)	*aspah*	
		अश्मन् (*áśman*)	*asman*	ἄκμων (*ákmon*)
(आ)	(*ā*).	मातरः (*mātáraḥ*)	*mātarō*	μήτηρ (*mḗtēr*)
(इ & ई)	(*i* & *ī*).	चित्तिस् (*cittis*)	*cistiś*	
		इहि (*ihi*)	*idi*	
		सिंचति (*siñcáti*)	*hinca*^{i}*ti*	
(उ & ऊ)	(*u* & *ū*).	पुत्रः (*putráḥ*)	*puθrō*	*putillus*
		कृणुयात् (*kṛṇuyāt*)	*kərənuyāt*	
		उत (*utá*)	*uta*	
		दारु (*dāru*)	*dā*^{u}*ru*	δόρυ (*dóru*)
		शूरः (*śūraḥ*)	*sūra*	
		भूमिम् (*bhūmim*)	*būmīm*.	

Examples of अ (*a*) and आ (*ā*), which represent in the Indo-Aryan branch the old *e* and *o*, *è* and *ō* respectively:—

(*a*) अ (*a*) for *e*. Sk. अश्व (*áśva*) and Av. *aspa*; Sk. अस्ति (*ásti*) and Av. (*asti*); whereas Lat. has *equus*, Gr. *esti*; Sk. च, (*ca*) Av. *ca*, Lat. *que*.

(*b*) अ (*a*) for *o*. Sk. ददर्श (*dadárśa*) Av. *dādarəsa*, Gr. δέδορκε (*dédorke*); Sk. भरन्ति (*bháranti*), अभरन् (*ábharan*), Old Pers. *barantiy*, *abaran*, Gr. (Doric) φέροντι (*phéronti*), ἔφερον (*hépheron*); Sk. वृक (*vṛ́ka*), Av. *vəhrkas*, Gr. λύκος (*lúkos*).

(*c*) आ (*ā*) for *è*. Sk. अधात् (*ádhāt*), Av. *dāt*, Gr. θῆσι (*thési*); Sk. आस्ते (*áste*) Av. *āste*, Gr. ἧσται; (*hestai*), Sk. आस् (*ās*,) Av. *as*, Gr. (Hom) ἦα (*ea*).

(*d*) आ (*ā*) for *ō*. Sk. दात्रम् (*dātrám*), Av. *daθrəm*, Gr. root. δο (*dó*) in δίδωμι (*didomi*); Sk. वाक् (*vāk*) Av. *vāxs*, Lat. *vōx*; Sk. द्वा (*dvā*,) Av. *dvā* (Gāthā), Gr. δύω (*dúo*), Lat. *duō*.

Besides these, there is a vowel, a weakening of $\bar{e}, \bar{o}, \bar{a}$, called Schwa[1] Indogermanicum. It is represented by an inverted *e*, *i. e.* as *ə*. It has remained separate from original अ (*a*) only in the Indo-Irāṇian branch, where it is changed into इ (*i*).

Indg. *ə*: Sk. इ (*i*), Av. *i*, Gr. and Lat. *a*: पिता (*pitā*), Av. *pita*, Gr. πατήρ (*patḗr*), Lat. *pater*; Sk. शिष्ट (*śiṣṭá*), Av. *siśoit*, Lat. *castus*.

Examples from Sanskrit only; स्थितः (*sthitáḥ*), Gr. στατός (*statós*), Sk. दुहितर् (*duhitár*), Gr. θυγάτηρ (*thugáter*).

Sometimes however the Avesta shows difference with Sanskrit in quality or quantity.

(A) *Quantity*:—

	Sk.		Av.	Sk.		Av.
(अ & आ)	नाना	(*nānā*)	*nanā*	अथर्वा	(*átharvā*)	*āθrava*
(*a* & *ā*)	यतरः	(*yataráḥ*)	*yatārō*	मावते	(*māvate*)	*mavoite*
(इ & ई)	विश्वम्	(*viśvám*)	*vīspem*	वितस्तिम्	(*vitástim*)	*vītastim*
(*i* & *ī*)	अनीकम्	(*ánīkam*)	*ainikəm*	ईशानम्	(*īśánam*)	*isānəm*
(उ & ऊ)	शुनः	(*śúnaḥ*)	*sūnō*	...	...	...
(*u* & *ū*)	सूनवः	(*sūnávaḥ*)	*hunavo*	...	...	...

These appear to be sporadic cases, but mostly there are certain laws governing the change of quantity. A few are indicated below :—

1. BRUGMANN, *Kurze Vergleichende Grammatik* pp. 80 & 141.

(*a*) Sanskrit इ (*i*) & उ (*u*), are regularly lengthened before final म् (*m*). पतिम् (*pátim*) *-paitīm*, पितुम् (*pitúm*) *-pitūm*, धासिम् (*dhāsim*) *-dāhīm*,

(*b*) Sanskrit short monosyllables are regularly long हि (*hí*) *-Zī*, नु (*nú*) *-nú*, प्र (*prá*) *-frā*.

(*c*) In Gāthā—Avesta all finals become long, असुर (*ásura*) *-ahurā*, कुत्र (*kútra*) *kuþrā*, असि (*ási*) *-ahī*.

(B) *Quality* :—

Sk. अ (*a*)	Av. *ə* before *n*, *m* ;		सन्तम् (*sántam*) *-həntəm*, उपमम् (*upamám*) *-upəməm*.
,, अ (*a*)	,, *i* (through *ə*) before *n*, *m* ;		यम् (*yám*) *-yim*, वाचम् (*vácam*) *-vācim*, द्रुहम् (*drúham*) *-drugim*
,, अ (*a*)	,, *ə*		अहम् (*ahám*) *-azəm*.
,, अ (*a*)	,, *e*, before *y*, when *i*, *ī*, *e*, *ē*, follow ;		रोचयति (*Rocáyati*) *-(rocayeti)* अयानि (*ayāni*) *-ayenī*, यज्ञ (*yajñá*) *-yesne*
,, अ (*a*)	,, *o*		वसु (*vasu*) *-vohu*, मक्षु (*makṣú*) *-mośu*
,, अ (*a*)	,, *ō*		धामसु (*dhāmasu*) *-dāmōhu*.

There are also other examples[1] of change in quality ; we shall speak of only one more.

Sk. ऋ (*r̥*), Av. *ər°* or *ar°*		कृणोति (*kr̥ṇóti*) *-ker°naoti*, ऋष्टिः (*r̥ṣṭiḥ*) *-arštiš*	मृत्युः (*mr̥tyúḥ*) *-mər°þyus*
,, इर्, उर्, (*ir*), (*ur*), Av. *ar*, *ər*		हिरण्यस्य (*hiraṇyasya*) *-zāranyehe*, गिरिः (*giriḥ*) *-gairš*	

1. JACKSON, *Avesta Grammar*, p. 13.

The Avesta shows the following diphthongs to correspond to the Sanskrit diphthongs:—

ए, (*e*)	*aē* : एतत् (*etát*)–*aētat*,	वेद (*véda*)–*vaēdā*,	दूरेदृश् (*dūredṛś*)–*dūraēdars*
	ōi : वेत्थ (*véttha*)–*vōistā*,	ये (*ye*)–*yōi*,	भूरे (*bhūreḥ*)–*būrōis*
ओ, (*o*)	*ao* : ओजस् (*ojas*)–*aojō*,	प्रोक्तः (*proktáḥ*)–*fraohtō*	
	əu : क्रतोः (*krátoḥ*)–*hratəuś*,	वसोः (*vásoḥ*)–*vaŋhəuś*	

Since these vowels, ए (*e*) and ओ (*o*) play a great part in गुण (*guṇa*) and वृद्धि (*vṛddhi*), their correspondents in Avesta also do the same.

We shall pass over abbreviations and reductions in the Avesta, such as are exemplified *e. g.* in the reduction of य् (*y*) into इ (*i*), व् (*v*) into उ (*u*) *i. e.* संप्रसारण (*samprasāraṇa*), or abbreviation as in प्रतियन्तु (*prátiyantu*)–*paⁱtyantu*, and notice certain sound phenomena in the Avesta, which are very remarkable. These are called *epenthesis*, *prothesis*, and *anaptyxis*.

1. *Epenthesis* is a very special characteristic of the Avesta. It consists in the insertion of an anticipatory *i* or *u*, when the following syllables contain *i*, *î*, *e*, *é*, *y*, or *u*, *v*.

Sk. भवति (*bhávati*) Av. *bavaⁱti*, एति (*eti*)–*aēⁱti*, भरन्ति (*bháranti*)–*baraⁱnti*
„ अर्वन्तः (*árvantaḥ*) „ *aᵘrvanto*, अरुषः (*aruṣáḥ*)–*a ruṣo*, तरुणम् (*táruṇam*)–*taᵘrunəm*
„ परु (in परुच्छेप) (*paru*)(*paruchhepa*)–*poᵘru*

2. *Prothesis*. This is the same as epenthesis, with this difference, that the anticipatory syllable comes initially. It takes place regularly before *r*, followed by *i* or *u*.

Sk. रिणक्ति (*riṇákti*)–*ⁱrinahti*, रिष्यति (*riṣyati*)–*ⁱrisyeⁱti*, रोपयन्ति–(*rópayanti*) *ᵘrūpayeⁱnti*

3. *Anaptyxis*. This is the name of an irrational vowel that develops between two consonants, especially if one of them be *r*, and regularly after final *r*.

Sk. वक्त्र-(*vak'trá*) *vahədra*, नप्तर्-(*naptar*) *nafədrat* (abl.), अन्तर्-(*antar*) *antârə*
,, स्वर्-(*svár*) *hvarə*, यह्वी-(*yahvī*) *yezⁱwī*, सव्ये-(*savyá*) *havoya*
,, घर्मः-(*gharmaḥ*) *garəmō*, दध्मसि-(*dadmasi*) *dadəmahi*, मह्यम्-(*mahyam*) *maⁱbyā*

(*b*) The Avestan consonantal system[1] is not as rich as the Sanskrit one. The Avesta has only two palatals *c* and *j*; cerebrals are entirely wanting; there are no aspirates *i.e.* the tenuez aspirates and medial aspirates: the nasals are only partly the same as in Sanskrit. Of sibilants however the Avesta shows a profusion unknown to Sanskrit.

(1) The Sk. tenuez are kept almost the same in Av. Sk. उपरि (*upári*), Av. *upaⁱri*, कृप (*krpá*)-*kərəfs*, पतन्ति (*pátanti*)-*patənti*, तद् (*tad*)-*tat*, अति (*áti*)-*ati*, अस्ति (*ásti*)-*asti*, तापयति (*tāpayati*)-*tāpayeⁱti*, कतर (*katará*)-*katārō*, कः (*káḥ*)-*kas*, चरति (*cárati*)-*caraⁱti*, चाकन् (*cākan*)-*cakana*.

But the same tenuez are in Avesta changed to spirants before consonants:—

Sk. क्रतुः (*kratuḥ*)-*hratuś*, क्षत्रम् (*kṣatrám*)-*hśaθrəm*, स्वप्नम् (*svápnam*)-*hvaſnəm*, सत्यः (*sátyaḥ*)-*haiθyo*, प्रोक्तः (*proktaḥ*)-*fraohtō*, द्रप्सः (*drapsáḥ*)-*drafšō*.

So that they have fallen together with the spirants that are due to tenuez aspirates in Sanskrit, which we shall now treat.

Exception:—No change takes places when a sibilant precedes.
उष्ट्रम् (*uṣtram*)-*uštrəm*, अस्फुरत् (*ásphurat*)-*sparat*, स्थूरम् (*sthūrám*)-*staərəm*, a bullock, स्खलयति (*skhalayati*)-*skarayant*; स्त (*sta*) remains unchanged, सप्त (*saptá*)-*hapta*, सुप्तिः (*súptiḥ*)-*hupti*

1. JACKSON, *Avesta Grammar* pp. 27 ff.

(2) Tenuez aspirates are represented by spirants *f*, *þ*, *h* in Avesta.

Sk. संखा (*sákhā*)-*haha*, सप्तथस् (*saptáthas*)-*haptaþəm*, कफस् (*kaphas*)-*kafəm*, शंफासः (*śaphāsaḥ*)-*safaəvhō*, खा (*khā*)-*haə*, गाथा (*gāthā*)-*gaþaə*.

(3) Sanskrit mediae are also represented by mediae in Avesta. Sk. उपब्द (*upabda*)-Av. *upabda*, दीर्घ (*dīrgha*)-*dar*^{ə}*ga*, सद्: (*sadáḥ*)-*hadis*, उग्रान (*ugrāna*)-*ugrəvg*, विद्वान् (*vidvān*)-*vīdvaə*. These have fallen together with the Avestan medials, which represent Sanskrit medial aspirates.

(4) Sanskrit medial aspirates are represented by medials; भ्रांता (*bhrātā*)-*brāta*, भिस् (*bhis*) and भ्यस् (*bhyas*)-*bya*, उभाभ्याम् (*ubhābhyām*)-*ubōibhā*, मंधु (*mádhu*)-*madu*, and धर्षति (*dharṣati*)-*darsis*, अध (*adha*)-*adā*.

(5) The Avesta *j* represents Sanskrit ज् (*j*), जीवन्तम् (*jīvántam*)-*jivantəm*, ज्य (*jya*)-*jyaə*, ओजिष्ठ (*ójiṣṭha*)-*aojišto*. But it also represents Sanskrit *h*, हन्तारम् (*hantáram*)-*jantarəm*, अर्हति (*árhati*)-*arəja*^{i}*ti*, द्रुहम् (*drúham*)-*daujim*.

This double character of the *j* is due to the fact that the original sonant aspirates (see 4) coalesce with the medials and that in Sanskrit itself *j* and *h* have a double nature.

(6) The semivowels and liquids are generally the same as in Sanskrit. यज्ञम् (*yajñám*)-*yasnəm*, असुरस्य (*ásurasya*)-*ahurahyā*, वस्त्रम् (*vástram*)-*vastrəm*, वात (*vāta*)-*vātō*, स्वश्व (*svaśva*)-*havspō*.

त्व (*tva*) in combination becomes *þwa* but remains when sibilant precedes; क्रत्वा *krátvā*-*hraþwo*, त्वाम् (*tvām*)-*þwam*; but *varštva* and not *þva*. Sk. श्व(*śva*), appears in Av. as *sp*. विश्वम् (*viśvam*)-*vīspəm*, अश्व (*áśva*)-*aspō*, श्वेतम् (*śvétam*)-*spaētəm*.

(7) Sanskrit *m* has an Avesta *m*, but Sanskrit *n* is represented in different ways.

Sk. मनः (*manaḥ*)–*manahva*, तनुस् (*tanús*)–*tanúś*,
,, जंघा (*jaṁghā*)-*zaṅga*, नाम (*nā́ma*)-*nāma*, भरन्ति
,, (*bháranti*)-*barənti*,

(8) Sibilants:—Original *s* remains the same under certain conditions but generally becomes *h*;

a. स्कम्भम् (*skambhám*)–*skəmbəm*, स्तोतारम् (*stotā́ram*)–*staotārəm*, स्पर्धानि (*spárdhāni*)–*spərədani*; but सप्त (*saptá*)–*hapta*, सिंधु (*síndhu*)–*hindu*, सोमम् (*sómam*)–*haomə̄m*, सखा (*sakhā*)-*hahā*, सर्व (*sarva*)–*haorva*, सव्य (*savya*)–*havoya*

b. असि (*asi*)–*ahī*, नमसि (*námasi*)–*nəmahī*, असुम् (*asum*)–*ahūm*, but वसनम् (*vásanam*)–*vaŋhanəm*, अवसो (*ávaso*)–*avaŋho*

c. पुत्रस् (*putras*)–*puθro*, ईषवः (*iṣavaḥ*)–*iśavo*

This last treatment of स् (*s*) in a termination finds a parallel in the Prākrits.

For the representation of *s* with other consonants see JACKSON, *Avestā Grammar* pp. 45 ff.[1]

अस्य (*asyá*)–*ahe*,	असुरस्य (*ásurasya*)–*ahurahyā*
सहस्रम् (*sahásram*)–*hazaŋrem*	दस्रः (*dasráḥ*)–*daŋrō*
स्मत् (*smát*)–*mat*	स्मसि (*smási*)–*mahī*
but कस्मै (*kásmai*)–*kahmai*	द्रप्सः (*drapsaḥ*)–*draſsō*
मत्स्य (*mátsya*)–*masyō*	दास्व (*dā́sva*)–*dasva*

There are three or four other sibilants, for which see JACKSON *op. cit.* pp. 49 ff. The *z* in Avesta represents Sk. *j* or *h* as remarked above; *e.g.* जार्त (*jā́tá*)–*zātō*, यजते (*yajáte*)–*yaza*^{i}*te*, and हस्त (*hásta*)–*zasta*, अहम् (*áham*)–*azem*.

1. See also REICHELT:—*Awestisches Elementarbuch*, § 81-100.

31. INFLECTION:—In declension Avestā agrees entirely with Sanskrit. It has eight cases, three numbers and three genders. The uses of the cases are generally the same. The endings are:

Sing.	Plur.
N. *s, ś*	*ō, ā, aṿho*
A. *m*	*ō, ā*
I. *ā*	*biś*
D *ē*	*byō*
Ab. *(a) t*	*byō*
G. *ō, s, he, hyā*	*am*
L. *i*	*su, śu hu*

We decline one or two words which will show clearly how the Avesta is in perfect agreement with the Sanskit.

yasnō–यज्ञः (*yajñáḥ*) *yasnaᵛhō*–यज्ञाः (*yajñāḥ*)
yasnəm–यज्ञम् (*yajñám*) *yasna*–यज्ञान् (*yajñān*)
yasna–यज्ञा (*yajñá*) *yasnāis*–यज्ञैः (*yajñaiḥ*)
(Vedic Inst.)
yasnāi–यज्ञाय (*yajñáya*) *yasnaēibyō*–यज्ञेभ्यः (*yajñébhyaḥ*)
yasnahe–यज्ञस्य (*yajñásya*) *yasnanam*–यज्ञानाम् (*yajñánām*)
yasne–यज्ञे (*yajñé*) *yasnaēšu*–यज्ञेषु (*yajñéṣu*)
yasna–यज्ञ (*yájña*)

We give singular paradigms only of an *ā* and *i* base *daēnā*–consciene, religion, *gaⁱri*–mountain

daēna–आः (*āḥ*)	*gaⁱrīs*	Sk. गिरिः	(*giriḥ*)
daenam–आम् (*ām*)	*gaⁱrīm*	,, गिरिम्	(*girim*)
daēnaya–अया (*ayā*)	*gaⁱri*	,, गिरी	(*girī*)–Vedic.
daēnayāi–आयै (*āyai*)	*garəē*	,, गिरये	(*giraye*)
daēnayāt–याः (*yāḥ*)	*garōit*		
daēnayaə- याः (*yāḥ*)	*gārois*	,, गिरेः	(*gireḥ*)
daēnaya–याम् (*yām*)	*gara*	,, गिरा	(*girā*)–Ved.
		for गिरा	(*girau*)
daēne–ए (*e*)	*gaire*	,, गिरे	(*gire*)

Stems in उ (*u*) are declined on similar lines; *i. e.* of इ (*i*) stems. Consonantal stems are declined as in Sanskrit. The only difference being in the abl. where *at*, variant of *āt*, as seen in feminine *ā* bases and of *oit* seen in *a*, *i* bases, is invariably used; abl. *vīsat*, Sk. विशः (*viśah*). The other cases of the word are *vīś*, *visəm*, *visa*, *vīse*, *vīso*, *vīsi*.

It is not possible to treat in this short space other stems also. We refer the reader to the excellent summary in JACKSON.[1] *dāta*, *dātarəm*, *dāθra*, *dāθre*, *dāθrat*, *dāθrō*, *dataraə dātari*, are just like the declension of Sanskrit दातृ (*dātṛ*) with phonetic changes, excepting the persistent *at*, of the ablative. *aⁱryama*, *aⁱryamanəm*, *aⁱryamna*, *aⁱryamaⁱne aⁱryamnat*, *aⁱryamnō*, *aⁱryamaⁱni*, *aⁱryama*, may be compared with the paradigms of Sk. अर्यमन् (*aryaman*).

(*a*) Adjectives agree. as in Sk. entirely with nouns in declension and therefore need not be treated separately. Only the comparison need be shortly noted. As in Sanskrit, there are two ways of forming the two degrees; (1) adding–*tara*, Sk. तर (*tara*), *təma*, Sk. तम (*tama*), and (2)–*yah*–इयस् (*iyas*), *ista*–ईष्ठ (*iṣṭa*).

amavant–strong,	*amavastara*,	*amavastəma*
huyaśta–Sk. स्विष्ट (*sviṣṭa*)	*huyastara*	
maz– ,, मह् (*mah*)	*mazyas*	*maziśta*–महिष्ठ (*mahiṣṭha*)
vohu ,, वसु (*vasu*)	*vahyah*–वस्यः (*vasyaḥ*)	*vasiśta*–वसिष्ठ (*vasiṣṭha*)
āsu ,, आशु (*āśu*)	*ásyah*	*āsiśta*– आशिष्ठ (*āśiṣṭha*)

1. *Avesta Grammar* pp. 82 ff.

(*b*) We have given a specimen of Avestā numerals in the previous part, where we considered what constituted an Indo-Germanic language. A repetition, however, is not without benefit.

There are, as in Sanskrit, both cardinals and ordinals and they have declensions like nouns. Cardinals *aēva, dva, þri, caþwar, panca, hśvaś, hapta, aśta, nava, vīsaⁱtī, þrisat, etc sata, duye saⁱtə, caþwārō sata, etc, hazavra, baēvar*; ordinals *fatəma* or, *proⁱrya, bitya, þritya, tuⁱrya, þuhda hśtva, haptaþa, aśtəma, etc.*

(*c*) *Pronouns*:–Most of the Avesta pronouns correspond to Sanskrit pronouns. A few specimens will suffice :

1st. person N. *azəm*, A. *man, mā* ; D. *māvōya, mē*; Ab. *mat*; G. *mana, mē*; pl. *vaēm, ahma*, or *nō, ahmaⁱbyā* etc.

2nd. person N. *tūm, tū*; A. *þwam þwā*; I. *þwā*; D. *taⁱbyā, tē*; Ab. *þwat*; G. *tava, tē* ; plu *yūzəm, vō, yūsma-oyō, hśmāvōya, yūśmākəm, vō.*

The third personal pronoun *hīm hē*, is defective. Its deficiencies are partly made up by the demonstrative pronoun (*ho, təm, ta, tahe* etc.); this is also in keeping with Sanskrit.

Relative pronoun–*yō, yim, yā, yahmāi, yahmāt, yehe*, or *yeþhe, yahmi*; pl–*yōi, ya, yāiś, yaēⁱbyō, yaēśam, yaēśū.*

One sees at once, that granting phonetic changes, there is no difference between Avesta and Sanskrit forms of pronouns. We might pass over other pronominal bases and their declension, and turn to the conjugation of verbs.

A. CONJUGATION :—The Avesta agrees with the Vedic Sanskrit in voices, tenses and moods (subjunctive included). In their usage, too, there is no difference. There are also infinitive and participle forms. In person and number there is perfect accord, as was to be expected.

There are primary and secondary endings.

(*a*) *Active, mi, hi, ti, mahi,* (मसि) (*masi*), *þa, nti.*
Middle e vhe, te, ma'de. *þwe, nte.*

(*b*) *m, s, t, ma, ta, n,* are secondary.

The Imp. has *di, tu, ta,* or *na, ntu,* Sk. धि (*dhi*), तु (*tu*), and त (*ta*), and न्तु (*ntu*), *vuha, tam, dvəm, ntam,* Sk. स्व (*sva*), ताम् (*tām*), ध्वम् (*dhvam*), न्ताम् (*ntām*).

The roots, as in Sanskrit, fall into two groups, thematic and non-thematic according as they insert the stem-vowel *a* or not. There are like Sanskrit ten classes in all. Two *a* classes, a *ya* and an *aya* class, all of thematic roots; a root class, a reduplicative class, a nasal class, and *nu,–u,–nā* classes of non-thematic roots.

We give paradigms of the *indicative* of *bar,* Sanskrit भर्-(*bhar*).

	Sing.	Plu.		Sing.	Plu.
Present	*barāmi*	*barāmahi*	Preterite	*barəm*	*barāma*
	barahi	*baraþa*		*barō*	*barata*
	bara'ti	*barənti*		*barat*	*barən*

The close similarity of this with Sanskrit भरामि (*bhárāmi*), भरन्तु (*bharantu*), and अभरम् (*ábharam*), अभरन् (*ábharan*), will be easily recognised.

The imperative forms are *bara, baratu, barata, barəntu,* corresponding to भर (*bhára*), भरतु (*bháratu*), भरत (*bhárata*), भरन्तु (*bhárantu*), for Active and *barevuha baratam, baradwəm barəntam* corresponding to भरस्व (*bhárasva*), भरताम् (*bharatām*), भरन्ताम् (*bharantām*), for Middle.

Omitting other moods, we shall only give the paradigms of the subjunctive.

Sing.			Plu		
barāni	भराणि	(*bharāni*),	*barāma*	भराम	(*bharāma*)
barāhi	भरासि	(*bhárāsi*),	*barāþa,*	भराथ	(*bhárātha*)
barāti	भराति	(*bharāti*)	*baran*	भरान्	(*bharān*)
barāt	भरात्	(*bharāt*)			

The optative agrees entirely with Sanskrit optative; *barōis*–भरेः (*bhareḥ*), *barōit*–भरेत् (*bharet*), etc.

The present participles are *barant* and *barəmna*, Sk. भरन्त् (*bharant*), भरमाण (*bharaṃāṇa*).

Of the root or non-conjugational class, we shall take the root *ah*, *Sk.* अस् (*as*).

	Sing.	Plu.			
Present	*ahmi*	*mahi* (स्मसि–(*smasi*) Ved)	Preterite	*āṣ*	Ved. आस् (*āṣ*)
	ahi	*stā*		*as*	,, आसीत् (*āsīt*)
	asti	*hənti*			

Imper. *azdī* Sk. एधि (*edhi*) *astu*

Subj. *aṿhō*, असस् (*asas*); *aṿhati*, असति (*asati*); *aṿhat*, असत् (*asat*)

Optat. *hyem*, स्याम् (*syāṃ*); *hyaə*, स्याः (*syāḥ*); *hyāt*, स्यात् (*syāt*)

Pres. Part—*hant*, Sk. सन्त् (*sant*).

Dadāmi, *kər°naomi*, *frināmi*, are examples of the reduplicated, *nu*, *na*, classes.

The perfect is formed with reduplication in most cases, and without it in a few cases as in Sanskrit. The rules of reduplication are almost identical.

didva°sa–दिद्वेष (*didveṣa*), *dādar°sa*–ददर्श (*dadarśa*) *va°da*–वेद (*veda*), *chakana*–चाकन् (*cākan*), *dadāra*–दधार (*dadhāra*).

These typical examples will show the wonderful similarity, almost identity, of the forms n the two languages.

In aorist the Avesta shows as great a variety as the Sanskrit. There are the non-sigmatic and the sigmatic groups. But as in the imperfect, the Avesta differs from Sanskrit in not always having an augment; though there are several augmented forms in the Avesta such as *apataṭ* and *abavat e. g.*

Simple Aor. { *dāt*–अधात् (*adhāt*), *dāmā*–अधाम (*adhāma*),
{ *darəsəm*–अदर्शम् (*adarśam*)

Redup. Aor. *vaocəm*–अवोचम् (*avocam*), *zizanāt*–अजीजनत् (*ájījanat*)

S. Aor. { *masta*–अमंस्त (*amaṁsta*) *dāis* from *da*
{ *þrāzdūm*–त्राध्वम् (*trādhvam*)

The last example shows that the Avesta forms sigmatic Aorist from roots, which are conjugated otherwise in Sanskrit in that tense. The Av. agrees with the Sk. even in the *i* of the 3rd sing, of the passive aorist *e. g. srāvi*, Sk. अश्रावि (*aśrāvi*).

The Future:—The characteristic स्य (*sya*) (ष्य) (*ṣya*), of the Sk. future is seen in the Av. *hya*. The root assumes the same form before it as in Sanskrit:

fravahśya–प्रवक्ष्यामि (*pravakṣyāmi*), *har°śyente*–सक्ष्यन्ते (*srakṣyante*)

bāśyant, *sūśyant* are *fut. part.* corresponding to Sk. भविष्यन्त् (*bhaviṣyant*), सोष्यन्त् (*soṣyant*).

The Avesta shows the same variety of other verbal forms, *e. g.* passive, causal, denominative, desiderative, frequentative, and participles, gerunds, infinitives as the *Ṛgveda*. A few examples will suffice to show, that here too, there is perfect accord between the Avesta and the Sanskrit.

Pass. *kiryeiti*–क्रियते (*kriyáte*), *maryate*–म्रियते (*mriyáte*)
Caus. *vaēdayeinti*–वेदयन्ते (*vedáyante*), *raocayeiti*–रोचयति (*rócayati*)

Denom. *nəmahyati*–नमस्यते (*namasyáte*), *pa*ⁱ*pye*ⁱ*ti*–पत्यति (*pátyati*)

Desid, *jījiśati*–जिजीषति (*jijīṣati*), *sīśati*–शिक्षति (*śikṣáti*)

Freq. *zaozaoti*–जोहवीति (*jōhavīti*), *daēdōiśt*–अदेदिष्ट (*adediṣṭa*)

We have already given pres. part. forms, which are seen to agree with corresponding forms in Sanskrit to an astonishing degree. The past. pass. part. is formed by adding—*ta*,–*ita* or–*na*; *uhta*–उक्त (*uktá*), *raodita*–रुदित (*ruditá*), *pərəna*–पूर्ण (*pūrṇá*). The gerund occurs only in stray forms; *pa*ⁱ*tiricya* प्रतिरिच्य (*pratiricya*). The infinitive has quite a variety of forms; *dərədyai* = Sk. ध्यै (*dhyai*), in पिबध्यै (*pibadhyai*), *kərətəe*=Sk.–तये(*taye*), त्यै (*tyai*), in इत्यै (*ityai*); *avaphe* = Sk.–असे (*ase*), in चक्षसे (*cakṣase*); *vidvanoi* = विद्मने (*vidmane*).

The above will have made it clear that old Sanskrit and Avesta are sister languages, which separated from each other in at least the second millenium before Christ, and what is also very likely, from a land[1] lying north of Afganistan and and east of the Caspian sea. Here they must have lived as dialects of one common language, differing as little as possible from each other in all essential points.

32. VEDIC SANSKRIT:—The Vedic language (add thereby we mean the language of the oldest part of the Vedic literature) has preserved to us some of the oldest features of the original Indo-Germanic lanaguage. Its consonant-system has preserved almost intact the old Indo-Germanic system, although* in vowels it has suffered losses. In inflection and conjugation too, it has preserved several of the old peculiarities that other languages have lost. Of consonants it has preserved the medial aspirates, which both the Greek and

* The names of the Vedic deities like INDRA, VARUṆA &c. found on the Hittite inscriptions of Mitani, do affect this. See Appendix 1 for the archaic nature of Hittite phonology.

the Latin have lost; *e. g.* भ्रातर् (*bhắrtar*), Gr. φράτωρ (*phrátor*), Lat. *frater*: Sk. दधामि (*dádhāmi*), Gr. τίθημι (*tithēmi*), Lat. *feci*, Sk. घेना (*ghénā*), Lat. *felus*; Sk. हन् (*han*), from घन् (*ghan*), Gr. θείνω (*theíno*), etc. We have seen how the Sanskrit had confused the three short vowels *a*,*e*, and *o*. In inflections it has preserved all the eight cases, the duals, although the distinction between some stems, *e. g. e* and *o*, is lost. It has preserved all the ten classes of roots, all the moods and tenses, and the various forms of the aorist.

The language of the *Veda*, i.*e.* the literary language, is based upon a dialect that was the oldest of the Indo-Irāṇian branch. That underlying the Avesta is comparatively younger. The *Ṛgveda* and the later *Saṁhitās* show a slight difference in language. Much more does the language of the oldest *Brāhmaṇas*, the *Tāṇḍya* and the *Taittirīya* show this difference. In fact the *Ṛgveda-Saṁhitā* itself shows an older and a younger form of language. The language of the 10th *Maṇḍala*, for instance, is in some points different from that of the older parts, *viz.* the so-called family-books. In fact, the language of the 10th *Maṇḍala* represents, so to speak, a transition[1] between the *Ṛgvedic* language and the language of the other *Saṁhitās*. We may notice certain points.

1. The hiatus, so frequent in the previous *Maṇḍalās*, becomes rarer. Such combinations, or rather want of combinations, as यां ते शविष्ठ नव्या अकर्म (*yắ tē śaviṣṭha návyā ákarma*), V 29, 15, इयं मनीषा इयमश्विना गीः (*iyaṁ manīṣá iyamáśvinā gī́ḥ*), VII 71, 6 tend to disappear.

2. य् (*y*), and व् (*v*), in the middle and end of a word often take the place of इय् (*iy*), उव् (*uv*); त्वम् (*tvām*), for instance, appears as तुवम् (*tuvam*), more often in the older *Maṇḍalās*. The same is the case with त्यं (*tyá*).

1. WACKERNAGEL. *Altindische Grammatik*, XIV.

3. The Abhinihita-Sandhi, *i. e.* merging of initial अ (*a*), into preceding ए (*e*), or ओ (*o*), becomes more frequent. *e. g.* समानो अध्वा प्रर्वतामनुष्यंदे (*samāno adhvā právátāmanuṣyáde*) II 13,2, and अवक्षिप दिवो अश्मानम् (*avakṣipa divó aśmānam*) I 121, 9, आग्निर्जातो अरोचत (*agnirjāto arocata*), V 14, 4, tend to disappear.

4. ल् (*l*), representing old Indo-German र् (*r*) (rarely ल् *l*) shows a tendency to increase; म्लुच् (*mluc*), लभ् (*labh*), लोम (*loma*), लोहित (*lohita*), against the old Vedic म्रुच् (*mruc*), रभ् (*rabh*), रोम (*róma*), रोहित (*róhita*), become more current. This ल् (*l*) is eight times as frequent in the later *Maṇḍalās* as in the older ones, and seven times as frequent in the *Atharva Veda* as in the *Ṛgveda*. All these peculiarities the 10th *Maṇḍala* shows in common with the later *Saṁhitās*.

5. Again the root ग्रभ् (*grabh*), shows ह् (*h*), in the older *Ṛgveda* only after a ऋ (*ṛ*), as हस्तगृह्य (*hastagṛhya*), but हस्तग्राभः (*hastagrābhaḥ*). In the tenth *Maṇḍala*, as in Classical Sanskrit, it has uniformly become ह् (*h*) *e. g.* जग्राह (*jagrāha*), old *Vedic* जग्राभं (*jagrābhā*); गृहाण (*gṛhāṇa*), O. V. ग्रभाय (*gṛābhāya*). The same is the case with the termination of the 2nd sing. imperative, धि (*dhi*). As in classical literature, it consistently becomes हि (*hi*) in the later *Maṇḍalās*, and other *Saṁhitās*. This, as we shall see, is a peculiarity of the Prākṛts.

6. Then the root कृ (*kṛ*) in the older *Veda* takes the conjugational sign नु (*nu*), कृणुमः (*kṛnumaḥ*), but it becomes कुर्मः (*kurmaḥ*) in the 10th *Maṇḍala*, as in later literature showing an उ (*u*) instead of the older नु (*nu*).

7. In inflection, the older forms *e. g.* mas. nom. plu. in आसस् (*āsas*), inst. plu. in एभिः (*ebhiḥ*) become rarer in preference to forms in अस् (*as*) and ऐः (*aiḥ*) as in classical Sanskrit.

8. The most marked change, however, is found in the Vocabulary. Words like ईम् (*īm*,) अवस्यु (*avasyú*), विचर्षणि (*vicarṣaṇi*), वीति (*vīti*), fall into disuse and new words come into vogue.

The language of the *Ṛksaṁhitā* is further essentially different from that of the younger *Samhitās*. Words quite usual in the *Ṛgveda*, for instance, like उर्विया (*urviyā*), ऋक्वन् (*ṛkvan*), सीम् (*sīm*), कन् (*kan*), are not found in the latter. Others like इत्था (*itthā*), इष् (*iṣ*), ईम् (*īm*), उक्थ्य (*ukthyá*), त्व (*tva*), उर्दन् (*udán*), उरुष्यति (*urūsyati*), ऊति (*ūti*), *rarely* occur. Vocatives in वस् (*vas*), and वन् (*van*), and nom. plu. in आसस् (*āsas*) are almost absent.

It is to be remarked, however, as WACKERNAGEL has pointed out, that the sound system has suffered the least change, because the redaction of texts of different *Saṁhitās* was done on similar principles. Yet the tendencey to incline to a *l* in preference to *r*, noticed above, kept on to be on the increase.

The prose contained in the *Yajurveda* and in the oldest *Brāhmaṇās*[1], shows the same kind of development. Younger *Brāhmaṇās*, like the *Aitareya* and *Jaiminīya* show forms like आवाम् (*āvām*), for old आवम् (*āvam*), and thus approach the classical stage to an appreciable degree; in the periphrastic perfect almost unknown to the *Saṁhitās*, the *Aitareya Brāhmaṇa* shows forms like आमन्त्रयां आस (*āmantrayām āsa*) where older *Brāhmaṇās* show चकार (*cakāra*) only and atm. optative forms in यीत (*yīta*), for the more usual येत (*yeta*), *e. g.* ह्वयीत, कामयीत (*hvayīta, kāmayīta*). The narrative perfect becomes more common in these than in the *Tāṇḍya* and *Taittirīya Brāhmaṇās*.

1. WACKERNAGEL, *op. cit* p. xxx.

This prose has lost the richness in forms that the *Ṛgveda* possessed, although the conjunctive is yet preserved and a variety of infinitive forms is shown. In syntax, however, this language presents a truer picture[1] of the old language, than could be done by the metrical *Ṛgveda*. It is remarkable that the oldest prose contained in the *Yajurveda* and the old *Brāhmaṇa* texts has no idea of a narrative perfect, which becomes prevalent later and which is found in the *Ṛgveda* itself. This may be explained perhaps by difference in dialects underlying the two forms of the language. WACKERNAGEL is not ready to accept a difference in dialect as the only possible cause. He sees therein also the possible working of metrical style.

33. It should be remembered, however, that this is yet *Vedic* or old Sanskrit. Only in the latest *Brāhmaṇās*, in the *Upaniṣads* and *Sūtras* etc. do we find a distinct resemblance with the Classical Sanskrit, which was once and for all fixed by Pāṇini's Grammar and which evidently became incapable of further development. The younger language has lost much of the Vedic wealth of forms. It has lost the conjunctive, except for the forms of the first person, which are incorporated into the imperative and limited the optative to present and precative. Of over a dozen infinitive forms तुम्, तवे, तवै, असे, ध्यै, (*tum, tave, tavai, ase, dhyai*), etc., only तुम् (*tum*) is preserved. The absolutive in त्वा (*tvā*) is used, but those in त्वी, त्वाय, (*tvī, tvāya*) and त्वीनम्, त्वानम्, (*tvīnam, tvānam*) are neglected. The terminations मसि, ध्व, ए, (*masi, dhva, e*) which were used side by side with मस्, ध्वम्, (*mas, dhvam*) and त (*ta*) in the Veda have disappeared. The र् (*r*) of the third person plural perfect, which was seen in the Veda even in other tenses *e. g.* अवस्रन्, अदृश्रन्, (*avasran, adṛśran*) has

1. WACKERNAGEL, *op. cit* p. xxxi. Compare also DELBRUK'S *Altindische Syntax* where this has been made amply clear.

almost disappeared, except in the forms of शी (*śī*) and those of atm. of 3rd. person plural perfect. Imperative ध्वात् (*dhvāt*), and धि (*dhi*), which were frequently used in Veda side by side with हि (*hi*), are also lost with the exception of stray forms like जुहुधि (*juhudhi*). In declension many of the double forms have totally disappeared *e, g.* आसस् (*āsas*), of nom. plu आ (*ā*) of nom. acc. and voc. duals, अ (*a*) of the instr. sing of stems in अ (*a*) and the आ (*ā*) for औ (*au*) of loc. sing. of stems in इ (*i*). In the same way, what were recognised as irregularities *viz.* vocative in वस् (*vas*) of stems in वन्त् (*vant*) like अद्रिवः (*adrivaḥ*), हरिवः (*harivaḥ*), gen. plu. गोनाम् (*gonām*) for गवाम् (*gavam*), चक्रुषम् (*cakruṣam*) for चक्रुवांसम् (*cakṛvāṁsam*) are dropped out of use. युवम् (*yuvam*) and युर्वत् (*yuvát*) are abandoned in preference to युवाम् (*yuvām*) etc. The wealth of verbal derivatives[1] like अवस्, दर्शत, मृळीक, वभ्रि (*avas, darśata, mṛḷīka, babhri*) is unknown to the classical Sanskrit.

This simplification and these losses are explained by WACKERNAGEL in the following way. The spoken Sanskrit of the Vedic times was simpler and more modern than the Sanskrit of the hymns. Then again the language of the people which had surely lost old endings and forms, reacted upon the classical language, tending to simplify the latter. Old Sanskrit forms that had nothing corresponding to them in the colloquial language were therefore on their way to oblivion. But that is scarcely a sufficient explanation, for on the one hand the classical language has preserved nominal and verbal forms which the colloquial languages have not kept; and on the other, the latter show old Vedic forms and sometimes categories of forms like देवाओ, देवेहि (*devāo, devehi*) which presuppose देवासः (*devāsaḥ*) and देवेभिः (*devebhiḥ*) which the classical language does not show. All languages that have passed into the literary stage show a tendency to limit the

1. BHANDARKAR, *Philological Lectures* p. 16.

stock of forms, to drop what seems superfluous like double forms, and to regularise paradigms of nouns and verbs. This must have been accelerated by the science of Grammar, which in India arose very early. We know that a language that is bound by Grammar and passes into the literary stage, is less apt to develop than one that is less fettered. Moreover the language of the people was already making rapid progress, leaving Sanskrit only to be a language of books and of the learned.

Here it must be said, that the attempt of certain scholars to brand classical Sanskrit as an artificial language actually created* by grammarians, is as ridiculous as it is unlinguistic. Grammarians can simplify and regularise language and perhaps stop its growth; they cannot create language. The attempt of certain enthusiastic idealists in Europe actually to create an international language, called *Esperanto* or *Ido*, and the fate that it met with, ought to convince any one of the futility of such a hypothesis. Languages cannot be *made* in that manner. It is strange to see scholars like WEBER, HOERNLE and GRIERSON advocating this theory of artificial Sanskrit. What is meant by WACKERNAGEL and others, when they call classical Sanskrit a *Kunst* or *Hoch-sprache* is, that it is now already a fossilized literary language and that it has long ceased to be in touch with the popular dialects. Grammarians have only canonized it as Pāli has been canonized by the writers of Southern Buddhism.

[1]The Classical Sanskrit is therefore, as we have seen, the literary development[2] of the oldest Vedic prose. In other

* BHANDARKAR, *Philological lectures* p. 27 has amply refuted this theory.

1. See footnote, page 48.
2. BHANDARKAR, *Op. cit.* p. 30.

words, it is the canonized form of the literary Vedic which is based upon an old Indo-Irāṇian dialect. It is not a dialect itself, as between that and the spoken language of the people there is a wide gulf. This does not mean, however, that the oldest form of classical Sanskrit was never spoken. It was itself a भाषा (*bhāṣā*), a spoken colloquial language, but only of schools and priests and the educated and higher classes. We find Yāska, the author of the *Nirukta*, making a distinction between the Vedic and his Sanskrit. The former he refers to by words like अन्वध्यायम् (*anvadhyāyam*), दाशतयीषु (*dāśatayīṣu*), and the latter as भाषा (*bhāṣā*), or colloquial speech. What is more important, he makes mention of प्राच्याः (*prācyāḥ*), or *easterners*, and उदीच्याः (*udīcyāḥ*), or *northerners*, while showing how *roots* are current among certain people and their *derivatives* only among others; *e. g.* दातिर्लवनार्थे प्राच्येषु दात्रमुदीच्येषु (*dātirlavanārthe prācyeṣu dātramudīcyeṣu*), Nir II, 2. He was therefore conscious of provincialisms and these are impossible unless we presume that in his time Sanskrit was a colloquial language to a certain extent. Coming to Pāṇini, we find the same thing; he also draws attention to provincialisms and calls his language भाषा (*bhāṣā*), as distinguished from the *Vedic* language, which he designates as छन्दस् (*chandas*). So does Kātyāyana, so also Patañjali. Again Pāṇini prescribes certain rules which apply only in the case of colloquial speech: e. g., the rule of Pāṇini नादिन्याक्रोशे पुत्रस्य (*nādinyākrośe putrasya*) 'the word पुत्र (*putra*), is not to be pronounced with a double त् (*t*) when the word आदिनी (*ādinī*) follows and the term is a reproach', or एकश्रुति[2] दूरात्संबुद्धौ (*ekaśruti dūrātsambuddhau*), or the प्लुति rules[3] वाक्यस्य टेः प्लुत उदात्तः (*vākyasya ṭeḥ pluta udāttaḥ*), प्रत्यभिवादेऽशूद्रे (*pratya-*

1. Pāṇini 8, 4, 48.
2. Pāṇini 1. 2, 33.
3. Pāṇini 8. 2. 82 ff. See WACKERNAGEL, *op. cit.* XLIII.

Vowel system					Sounds of Aryan				Front	Mixed	Back
Voices 1 Short	a	ie	u	o							
2 Long	ā	īē	ū	ō							
3 Diph	ai,	ei,	oi;		au,	eu,	ou	(first element short)			
4 Thongs	āi,	ēi,	ōi;		āu,	ēu,	ōu	(first element long)	1	2	3

Consonants	Labial	Dental	Palatal	Velar	Alveolar	Glottal	
Plosive	p, b, प्, ब्	t, d, त्, द्	c, च्	k, g, gw, kw	t, d, त्, द्		
Nasal	m, म्	n, न्	ɲ, ङ्	ŋ, ण्	n, ं		
Fricative	ph, bh, fv फ्, भ्, फ् व्	θ th dh, d थ् ठ् ढ् द्	ɕ, ʃ	kh, gh, x	s, z, ʃ ʒ r̥ r	h	
Senri Vowels	w, व्		j,	not found in Hittite (w)	l̥, l, स्, झ्		
Rolled	------	------	-----	-----	r̥, r, ऋर्		

Key-words for affricate consonant groups

g	give	गिव्ह	ʒ	measure	मेझर
ŋ	long	लॉङ्ग्	j	yes	येस्
θ	thin	थिन्	tʃ	chin	चिन्
ð	then	देन्	dʒ	jam	जॅम्
ʃ	ship	शिप्			

bhivāde śūdre), and दूराद्धूते च। (*dūrāddhūte ca*). Patañjali refers to his language as लौकिक or लोके, (*laukika*) *or* (*loke*), as against वेद (*veda*) and वेदे (*vede*), in reference to the language.

34. We shall now briefly consider the phonology of the *Vedic* Sanskrit which is called 'das Altindische' by German scholars.

a VOWELS:—अ, इ, उ, ऋ, (*a, i, u, ṛ*) both short and long, and ऌ (*ḷ*), are the simple vowels preserved in Sanskrit. We have seen how the simple *e, o*, of the western Indo-Germanic languages have been absorbed by the Sk. अ (*a*). The typical examples Sk. अजति (*ájati*), Gr. ἄγει, (*agei*), Sk. अश्व (*áśva*), Lat. *equus*, and Sk. पतिः (*pátiḥ*), Gr. πόσις (*pósis*), show how the one अ (*a*), represents *a, e* and *o* of the other Indo-Germanic languages. There is one thing to be noted in this connection, that before that अ (*a*), which represents an Indg. *e* there invariably appears in Sk. a palatal for a guttural of the other languages; *e. g.* अजति (*ájati*) where the अ (*a*) after ज् (*j*) represents an old *e* as the Gr. ἄγει (*agei*) shows; and Sk. च (*ca*), Lat. *que*, Gr. τε. (*te*)

This अ (*a*), however, does not represent an *a, e, o*, of the other languages which form the low grade of original *ā, ē, w*; in that case an इ (*i*), appears in Sanskrit, *e. g.* पितर् (*pitár*) Gr. πατήρ (*pater*), weak or low grade of पा (*pā*), and suffix तर् (*tar*),–τηρ (*–ter*).

Sk. अ (*a*) also represents what is known to philologists as *sonant nasal i. e. m̥ or n̥, e. g.* (*a*) अस् (*as*) of the acc. pl. beside न् (*n*) (from नस्) (*ns*), where अ (*a*) represents the nasal shown in the latter form of the termination; (*b*) अति (*ati*), अतु, (*atu*) of the third pers. plu. of roots belonging to the third conjugation, beside–अन्ति–अन्तु (*anti–antu*) of the other classes; (*c*) in the case of stems ending in अन्त् (*ant*), मन्त् (*mant*), etc. अ (*a*) represents the nasal in

weak cases *e. g.* सन्तौ (*santau*) but सता, सद्भिः (*sata, sadbhiḥ*); (*d*) in the case of stems in अन्, मन्, (*an, man*), and वन् (*van*), the nasal appears only before vowels; अ (*a*) appears before consonants *e. g.* नाम्ना (*nā́mnā*), but नाम (*nā́ma*), नामभिः (*nā́mabhiḥ*); (*e*) in the weak grade of roots ending in अन् (*an,*) अम् (*am*), अ (*a*) appears invariably; *e. g.* तनोति (*tanoti*), but तत (*tatá*), वितत्य (*vitatya*), अतथाः (*atathāḥ*); गम् (*gam*), has गहि (*gahi*), गत्वी (*gatvī*), अगस्महि (*agasmahi*); (f) अक्तु (*aktu*), and नक्ति (*nakti*), अभ्र (*abhra*), and नभस् (*nábhas*), Gr. ἀφρός (*aphrós*), and νέφος (*nephos*), are other characteristic examples of the representation of the sonant nasal.

2. इ (*i*) is the proper representative of the Indg. *i. e. g.* अविः (*áviḥ*) Lat. *ovis*; पतिः (*pátiḥ*), Gr. πόσις (*pósis*). But as remarked above, it also represents the weak grade of the old ā (*ē, ō,*) *e. g.* स्थिर (*sthirá*), स्थित (*sthitá*), to स्था (*sthā*), धित (*dhita*), to धा (*dhā*); असिन्व (*asinva*), असिन्वन् (*asinvan*), सिन (*sina,*) to सा (*sā,*) सन् (*san*) cf. Goth. *sōþa* (satisfaction). This Sk. इ (*i*) corresponds to Gr. *a, e. g.* पितर् (*pitár*), πατηρ (*patḕr*), from पा (*pā*), to protect, दुहितृ (*duhitṛ*), Gr. θυγάτηρ (*thugátēr*).

3. उ (*u*) in the same manner represents old *u, e. g.* Sk. पुत्र (*putrá*), Lat. *putulus*; श्रुतः (*śrutáḥ*):, Gr. κλυτός (*klutos*); नु (*nu*), Gr. νυ (*nu*). It also forms the weak grade to *o, au,* and of *v*, Sk. युग (*yugá*) and योग (*yogá*), स्वप्न (*svápna*), Sl. *supati.*

उ (*u*) sometimes appears to stand for ऋ, (*ṛ*), as in क्रोष्टु (*kroṣṭu*), for क्रोष्टृ (*kroṣṭṛ*), त्वष्टुमन्तः (*tvaṣṭumantaḥ*): for old त्वष्टृमन्त (*tvaṣṭṛmantaḥ*): This is due to contact with the colloquial languages which often represent Sk. ऋ (*ṛ*) in that way; *e. g.* उडुप (*uḍupa*), from ऋतु (*ṛtu*). This tendency is observed in the oldest language.

1. See *supra* Section. 14. d.
2. WACKERNAGEL, *Altindische Grammatik* 7-11.

4. ऋ (*ṛ*) and ऌ (*ḷ*) as vowels are only preserved in Sanskrit. In other languages they become *ar, ur, or, ra, al,* etc. *e. g.* Sk. मृत (*mṛtá*), Arm. *mard,* Lat. *mortuos*; Sk, दृष्ट (*dṛṣṭa*), Gr. δρακειν (*drakein*); Sk. वृकः (*vṛkaḥ*): Goth. *wulfs*; Sk. मृदु (*mṛdu*). Lat. *mollis.*

The long liquids are mostly changed; *e. g.* स्तीर्ण (*stīrṇa*), Gr. στρωτός (*strotós*); पूर्व (*pūrva*) Gr. πρώτος (*prótos*); पूर्ण (*pūrṇa*), Goth. *fulls,* Eng. *full*; ऊर्णा (*ūrṇā*), Lat. *lana,* Goth. *wulla.* They are seen unchanged in forms like Sk. नृणाम् (*nṛṇām*).

5. ए (*e*) and ओ (*o*) are regarded as monophthongs from the very beginning, even in the *Prātiśākhyās.* But in most cases they are diphthongs of अ (*a*) or आ (*ā*), and इ (*i*) or उ (*u*) as the second element. Sanskrit grammarians have recognised them as Sandhi of अ (*a*) and इ (*i*), अ (*a*) and उ (*u*) etc.

They are also seen in gradation with इ (*i*) and उ (*u*), better known in Indian grammar as गुण (*guṇa*). *e. g.* सिद्ध (*siddhá*), but सेधति (*sedhati*), and सिषेध (*siṣedha*), corresponding to the gradation in Gr. λιπεῖν, λείπω, λελοιπα, (*lipêin, leípō, leloipa*) or भुजम् (*bhujam*) but भोक्ष्यते (*bhokśyate*), and बुभोज (*bubhója*).

In certain words ए, ओ (*e, o*) before medials, medial aspirates and ह (*ha*), appear to represent old Indg. *az, aż, e.g.* नेदीयः (*nedīyaḥ*) Av. *nazdyo,* सेद (*seda*) perf. form of सद् (*sad*), Av. *hazdyāt,* from Indo-Āryan *sazd. Sazd* is to *sad* (सद्) (*sad*) as *papt* (Vedic अपप्तत् *apaptat*) is to पत् (*pat*); एधि (*edhi*), from अस् (*as*), presupposes the middle step *azdhi* (अझ्धि) which is actually found in the Avestā without the अ (*a*); मेध (*medha*) to Gr. μασθός (*masthós*), देहि (*dehi*) and धेहि (*dhehi*) to Av. *dazdi,* तृणेढि (*tṛnedhi*) from तृणह्+धि (*tṛnah+dhi*), through तृणझ्धि (*tṛṇajhdhi*).

ओ (*o*) also takes the place of अ (*a*) before ड (*ḍa*), or ढ (*ḍha*) *e, g.* षोडश (*ṣoḍasá*), but षष्टि (*ṣaṣṭi*), वोढुम् (*voḍhum*), from वह् (*vah*), सोढुम् (*soḍhum*) from सह् (*sah*).

6. These vowels following closely upon each other combine in various ways; and the combinations are called सन्धि (*sandhi*). But we have seen that in old Vedic Sanskrit, they had not yet become so rigid as in later literature. See *supra* about अभिनिहित सन्धि (*abhinihita sandhi*).

7. The *quantity* of these vowels is changed under various circumstances. (*a*) Vowels are lengthened before र् (*r*), as in गीर्भि: (*gīrbhiḥ*), पूर्षु (*pūrṣu*), in the *Vedic* language; this was not an absolute law and hence we get forms like हविर्भि: (*havirbhiḥ*), उर्वरा (*urvarā*), etc. (*b*) They are often lengthened as compensation of something dropped. When, for instance, a conjunct consonant is simplified, the preceding vowel is lengthened; *e. g.* ताढि (*tāḍhi*) from तक्ष् (*takṣ*), अषाट् (*áṣāṭ*) from सह् (*sah*), ईड् (*īḍ*) from यज् (*yaj*) or इष् (*iṣ*), नीड (*nīḍa*) from Indg. *nizda*, Eng. *nest*, पीड (*pīḍa*) from पिष्+द (*piṣ+da*), सीदति (*sīdati*) from Indg. *sizdeti*, ऊढ (*ūḍha*) from वह् (*vah*), गूढ (*gūḍha*) from गुह् (*guh*). (*c*) There is also lengthening due to several other causes; *e. g.* before य (*ya*) of the suffix, क्षीयते (*kṣīyate*) from क्षि (*kṣi*), सूयते (*sūyate*) from सु (*su*) or before य् (*y*) of the denominative, इ (*i*), उ (*u*), when not radical are lengthened जानीयते (*jānīyatè*), वल्गूयति (*valgūyati*).

8. We have already spoken above of the vowel gradation or *ablaut*, as it is called by GRIMM. The same is found in Sanskrit and was recognised by Sanskrit grammarians as गुण (*guṇa*), and वृद्धि (*vṛddhi*). Their reading of the phenomenon was, however, a bit different. They looked upon इ, उ, ऋ, ऌ, (*i, u, ṛ, ḷ*), as the basic vowels, which were strengthened under certain circumstances, *e. g.* when preceded by अ (*a*). No doubt in certain cases the इ, उ, ऋ, ऌ, (*i, u, ṛ, ḷ,*) are basic

1. *Supra*, Section 14 e. 2 and 3.

vowels, *e. g.* विवाह (*vivāha*) to वैवाहिक (*vaivāhika*); उर्णवाभ (*urṇavābha*) to और्णवाभ (*aurṇavābha*). But in almost all cases, they are what are called weak grades of ए, ओ, अर्, अल्, (*e, o, ar, al.*) It will be clear from the forms पतामि (*pátāmi*) अपप्तम् (*ápaptam*), and अपाति (*ápāti*), where पतामि (*pátāmi*), corresponds to Gr. πετομαι (*pètomai*) and shows therefore what is called the *e* or full grade. The second form where अ (*a*), which corresponds to Gr. *e*, is dropped, shows what is called the nil or weak grade; and the last form shows the strong grade. There are in all six series of *ablaut*, the *e* or Sk. अ (*a*) series, the *o* or also Sk. अ (*a*) series, the *a* series, and the three long series, of *ē*, *ō*, *ā*.

The following examples[1] will make it clear.

1. *e* series.

Normal.	Weak or Nil.	Lengthened or strong.
पद् (*pad*)	उप-द्व (*upa-dba*)	पादम्, पात् (*pādam, pāt*)
	ἐπίβδα (*épibdai*)	πόs (*p'os*)
पितरम् (*pitáram*)	पितृषु (*pitṛ́ṣu*)	पिता (*pitá*)
πατέρα (*patéra*)	πατράσι (*patrasi*)	πατήρ (*patîr*)

2. *ē* series.

दधामि (*dádhāmi*)	दध्मः, हितः (*dadmaḥ hitaḥ*)
τίθημι (*tithēmi*)	θετός (*thetos*)

1. MERINGER, *Indogermanische Sprachwissenschaft* p. 89. UHLENBECK, *Sanskrit Phonetics* pp. 10-14. WACKERNAGEL *Altindische Grammatik* p. 83 ff,

3. *a* series.

अजामि (*ajāmi*) (परि)-ज्मन् (*pari-jman*) आजिः (*ājiḥ*)
Gr. ἄγω (*ágo*) στρατηγός (*strategós*)

4. *ā* series.

तिष्ठामि (*tiṣṭhāmi*) स्थितः (*sthitaḥ*)
ἵστημι (ἵσταμι = *ístami*) στατος (*statós*)

5. *o* series is very rare even in the Greek language where the distinction between the three vowels *a*, *e*, and *o* is kept up.

6. *o* series.

ददामि (*dadámi*) आत्तः (*āttaḥ*) (देव) त्तः (*deva-ttaḥ*)
Gr. δίδωμι (*dídōmi*) δάτος (*datos*)

The reduction or weakening of the normal vowel of a base is due to the weakening[1] or shifting of the accent.

Besides this *quantitative* ablaut, there was also a *qualitative* ablaut, where the normal vowel, say *e*, alternated with an *o*, *e*, *g*, Gr. φρένες (*phrénes*), ἄφρονες (*áphrones*). But since in Sanskrit the distinction between the original simple vowels *e*, and *o* was lost at a very early date, this ablaut cannot be satisfactorily traced there; although equations[2] like पितर: (*pitáraḥ*) and त्वत्पितार: (*tvátpitāraḥ*), which correspond exactly to Gr. πατέρες (*pateres*), and ἀπάτορες (*ápátores*), show traces of this alternation in old Sanskrit.

1. BRUGMANN, *Kurze Vergleichende Grammatik* p. 141.
2. WACKERNAGEL, op. cip. p. 75.

In connection with the Indo-Germanic ablaut, it must be remembered that although as a general rule monosyllabic bases, showing *e. o* or nil, are very numerous, still there are what are called dis-syllabic roots or bases. They generally show a long *ē* or *ō*, which alternates with *ə*. The series of forms प्रथिमन् (*prathimán*), पृथिवी (*pṛthivī́*), beside प्रथः (*práthaḥ*), and पृथुः (*pṛthúḥ*), जनिता (*janitā́*), beside जनस् (*jánas*), Gr. ὀνέτωρ (*venétōr*), γένος (*génos*), necessitate the postulation, beside प्रथ् (*prath*), and जन् (*jan*), of roots *plethə* and *genə*. In like manner पर्णिमन् (*parīman*), when compared to अप्राः (*áprāḥ*) and पूर्णः (*pūrṇaḥ*), goes back upon the two-syllabled root *pelə*; पवित्रम् (*pavítram*), leads to root *pewə* etc. This latter example is important because it shows, what has been proved by F. DE SAUSSURE in his *Memoire sur systèm primitif voyelles des le languees indo-europeannes* that long ऊ (*ū*) is no simple vowel but a combination of *v* and *ə*; just as Sanskrit ओ (*ō*) is a combination of अ (*a*) and उ (*u*), which latter again is nothing else than the sonantised consonant *v*. The discovery of this new vowel *ə*, which, as seen above, renders certain roots dissyllabic, is due to the researches of BRUGMANN and SAUSSURE, among others. They were led to the discovery by the weak grade of roots ending in आ (*ā*), η, ω, viz. Sk. स्थितः (*sthitaḥ*), Gr. and στατός (*statós*), Lat. *status*, where Sk. इ (*i*) corresponds to Gr. and Lat. *a*, which was found to be unusual. The इ (*i*) and *a*, then, forming the weak grade of roots in long vowels, must go back upon an Indo-German sound, other than the existing ones. It was called *schwa* and represented by *ə*. Cf. also हित (*hita*) from धा (*dhā*), पिता (*pitā́*) from पा (*pā*). The ablaut itself therefore led to this discovery.

b. CONSONANTS.—The Sanskrit language has preserved the original Indogermanic consonants much better than it has done the vowels. It has preserved the original character of the tenuez mediae and the aspirates much better than Latin

and Greek. The Greek, the only language of the western group which has preserved the aspirates, has changed the medial aspirates into hard aspirates; *e. g.* Sk. भू (*bhū*) Gr. φύω (*phúō*); धा (*dhā*), θη (*thē*); नभस् (*nábhas*). νέφος (*néphos.*) The Latin has changed them into unvoiced spirants, *e. g.* धा (*dhā*), Lat *facio.* These, it should be remembered, are compound[1] consonants, being made up of the tenuis or media of a class and the aspirate *h.* The *Ṛkprātiśākhya* the oldest work on Vedic phonetics, already recognises the compound character of these.

1. The Sanskrit language shows five series or classes of consonants, carefully distinguished from the oldest times according to their place of articulation. Thus there is a क् (*k*) or guttural series, a च् (*c*), or palatal series, a त् (*t*) or dental series, a प् (*p*) or labial series and lastly a ट् (*ṭ*), or lingual series. Besides these there are the semivowels य् (*y*), व् (*v*), र् (*r*), ल् (*l*), and the three spirants श् (*ś*), ष् (*ṣ*), स् (*s*). Of these the guttural, the dental and labial series correspond to those of the other Indo-Germanic languages, and are the regular representatives of the original Indo-Germanic classes. Only in the Sanskrit guttural class have merged the two other classes of the old language, namely the pure velar gutturals and the labiovelar gutturals. Thus Sk. क् (*k*) represents both a *k* and a *qu* sound of the western Indg. languages.

e. g. (*a*) क्रविः (*kravíḥ*):, Lat. *cruor*; कारुः (*ārúḥ*), Gr. κηρυξ (*kirūch*) Eng. *herald*; शाखा (*śākhā*), Lit. *szaka,* (*branch*) Goth. *hoha* (*plough*). In primitive Germanic agriculture, a branch was used as a plough. भगः (*bhágaḥ*), Gr. φαγεῖν (*phageĩn*), O. Sl. *boge*; स्थगयति (*sthagayati*), Lat. *tego,* Icel. *þak,* (Eng. *thatch*), which is a dialectic variation of *thak.* जंघा (*jáṃghā*), Got. *gaggan* (pronounce *gangan*),

1. WACKERNAGEL, *op cit* p. 115. UHLENBECK, *Sanskrit Phonetics* p. 44.

O. H. G. *gangan*, Germ. *gang*; दीर्घः (*dīrgháḥ*), Gr. δολιχός (*dolicho's*), Got. *tulgus*.

(*b*) कः (*kaḥ*), Lat. *quo*, Got. *has*; सचेते (*sacaté*) [च् (*c*) for क् (*k*) by palatal law], Lat. *sequor*; चक्रम् (*cakrám*), Gr. *kuklós* Ang. S. *hweol*, Eng. *wheel*; गम् (*gam*), (Lat. *venio*), Got. *qiman*; रंजः (*râjaḥ*), [ज् (*j*) for क् (*k*)], Got. *riqis*.

2. The Indo-Germanic palatals have nothing to do with the Sk. palatals. These latter, as we shall see, are original velar gutturals palatalized on account of a following *i* or *e*. But the original Indo-German palatals have suffered a change in Sanskrit. They have become spirants, *i. e.* श्, ष्, स्, (ś, ṣ, s) and affricates ज्, झ्, (*j*, *jh*).

e. g. (*a*) श्रुतः (*śrutáḥ*), Gr. κλυτός (*klutós*), Lat. *in-clutus*; A. S. *hlud* = Loud. O. Ir. *cloth* = fame, O. Bulg *sluti*. दंश (*dáśa*), Gr. δέκα (*déka*), Got. *taihun*, Eng. *ten*; अश्रिः (*áśriḥ*), Lat. *acus*, O. H. G. *ahil*; शंसति (*śaṁsati*), Lat. *censeo*; विशम् (*viśám*), Lat. *vicus*, Gr. οἶκος (*oîkos*); छाया (*chāyā*), Gr. σκια (*skiá*), Got. *skeinan*, Ger. *scheinen*, Eng. *shine*.

(*b*) जरन्त् (*járant*), Gr. γέρον (*géron*); जनस् (*jánas*), Gr. γένος (*génos*), Got. *kuni*; जमा (*jmā*), Lit. *zeme*, O. Sl. *zemlja* (*e. g. Nova Zemla*); यजतः (*yajataḥ*), Gr. ἅγιος (*hagios*); जोषः (*joṣaḥ*), Lat. *gustus*, Got. *kiusan*; अंहस् (*áṁhas*) ह् (*h*) for घ् (*gh*) Lat. *ango*, Got. *aggwus* (pronounce *angwus*), लिह् (*lih*), Ger. *lecken*.

N.B. Sk. (ज्) therefore is no real palatal, but an affricate that goes back upon an original Indo-German palatal, (what in Sk. Grammar would be called a guttural).

3. The Sanskrit palatal class as a whole is a newcomer. It is the old velar or guttural class, labialized or not labialized, before palatal vowels इ (*i*), or ए (*e*), and the semivowel य् (*y*). This is the *palatal* law.

e. g. (*a*) चरुः (*caruḥ*), Icl. *hverr*, Gr. κέρνος (*kérnos*), चत्वारः (*catvāraḥ*), Lat. *quatuor*; पञ्च (*pañca*), Gr. πέντε (*pénte*), रोचते (*rocate*), Lat. *lucet*; Cf. शुचिः (*śuciḥ*), but शुक्रः (*śukráḥ*), रोचते (*rocate*), but रोक, लोक (*roka, loká*).

(*b*) जठर (*jaṭhára*), Got. *kilþei*; जरते (*járate*), O. H. G. *quirit*, Eng. *quoth*; जानि (*jāni*), Got. *gens*; जामि (*jāmi*), Lat. *geminus*; ओजस् *ójas* Lat. *auges* Got. *ankan*; of ओजस् (*ójas*) but उग्र (*ugrá*).

(*c*) हन्मि (*hanmi*), Av. *janmi*, हन्तारः (*hantāraḥ*), *jantāro*, Gr. θείνω (*théniō*); हर्यः (*haráḥ*), Gr. θέρσος (*thérsos*), कर्कः, कारुः, कालः, कतरः, कक्षः युगम्, गौः, गिरिः (*karkáḥ, kāruḥ*), *kālaḥ, kataráḥ, kakṣaḥ, yugám, gauḥ, giriḥ*), यकृत् (*yakṛt*) and several other words show the guttural, because it is not followed by a palatal vowel, as their counterpart in other languages *viz.* Gr. καρκίνος, κάρυξ, κάλως, πότερος, (Ion. κότερος); (*karkinos, kârux, kálos, póteros*, Ion. *kóteros*), *M. H. G. hahse*, Got. *juk*, (Eng. *yoke*), Gr. βοῦς, Lith. *giria*, Lat. *jecur*, show.

4. The dental and labial series properly represent the old series as the following equations will show.

e. g. (*a*) तनुः (*tanúḥ*) Lat. *tenuis*, Ger. *dün*, Eng. *thin*; त्रयः (*tráyaḥ*), Gr. τρεῖς (*treis*), Lat. *tres*; वर्तते (*vártate*), Lat. *verto*; पत्नी (*pátnī*), Gr. πότνια (*pótnia*), वेत्थ (*véttha*), Gr. οἶσθα (*oîstha*).

(*b*) दश (*dáśa*), Gr. δέκα (*déca*); द्रु (*dru*) Gr. δρῦς, δόρυ, (*drus, dóru*), Got. *triu*, Eng. *tree*; द्वौ, द्वे (*dvā dvaú*), Gr. δύω (*duō*), Lat. *duo*; सदः (*sádaḥ*), Gr. ἕδος (*hedos*), Lat. *sedeo*, Goth. *sitan*, Eng. *sit*; धूमः (*dhūmaḥ*), Gr. θυμός (*thūmós*), Lat. *fumus*;

मधु (*mádhu*), Gr. μέθυ (*methu*); धारु; Gr. θῆλυς (*thilus*).

(*c*) पतिः (*pátiḥ*), Gr., πόσις; पिता (*pitá*), Gr. πατήρ (*patēr*), (Goth. *fadar*, Eng. *father*); नपात् (*nápāt*), Lat. *nepos*; स्वप्नः (*svápnaḥ*), Gr. ὕπνος (*hupnos*), instances of Sk. फ् (*ph*), going back upon Indg, *ph* are not found. Sk. कफ (*kapha*), Av. *kafa*; शफ (*śahpa*), Av. *safa*.

(*d*) बलम् (*bálam*), Lat. *de-bilis*; बर्बर (*barbara*), Gr. βάρβαρος (*barbaros*), पिबामि (*pibāmi*), Lat. *bibo*; जम्बाल (*jambāla*), (जम् (*jam*, earth,) A.S. *pol*, Eng. *pool*; भरामि, (*bhárāmi*), Gr. φέρω (*pherō*), भू (*bhū*) Gr. φύω (*phuō*); भ्राता (*bhrátā*), Lat. *frater*; भ्रूः (*bhrūḥ*), Gr. ὀφρῦς (*ophrūs*), Eng. *brow*; जम्भ (*jámbha*), Gr. γόμφος (*gómphos*).

5. Amongst the Sanskrit sounds, the cerebrals are the most important because they are found in no other branch of the Indo-German family — not even in the Avesta. Fortunately, however, the Sanskrit language itself offers a solution of the question as to how they arose only here. We have a rule, for instance, as a consequence of which the dental न् (*n*) is changed to the cerebral ण् (*ṇ*), when preceded in the same word by *ṛ*, *r* or *ṣ*; *e. g.* उष्ण, ऋण, कीर्ण (*uṣṇa*, *ṛṇa*, *kīrṇa*); or that the dental sibilant स् (*s*) is changed to the lingual sibilant ष् (*ṣ*) when it is preceded by the vowels इ, ई (*i*, *ī*), and उ, ऊ, ऋ, ए (*u*, *ū*, *ṛ*, *e*) or ओ (*o*); *e. g.* करोषि, मातृषु (*karoṣi*, *matṛṣu*) etc. This gave the cue to scholars and many cerebrals were explained as being due to dentals, when originally a *r* or *l* preceded them. This explanation was offered by Pᴏᴏᴛ. विकट, संकट (*vikaṭa*,

*नभस् (*nabhas*)=cloud, Old Bulg. *nebo* Gr. νεφος (*néphos*), welsh *nef* =sky Lat. *nebula*.

भरति, O. B. *bera* Lat. *fero*.

बलीयान् (*balīyān*), stronger, O. Bulg *boliji*,=bigger, better Gr. βελτιων=better

saṁkaṭa) etc. from कृत; काट (*kṛta*; *kāṭa*) *depth*, Vedic कर्त (*karta*) *a pit*, from कृत; (*kṛta*) अवट; (*avaṭa*) *a pit*, Vedic अवर् (*avar*) *downwards*; कट (*kaṭa*) *a mat* from कृत, चृत (*kṛta*, *cṛta*); compare Gr. Κάρταλος (*kártalos*), *a basket*. आढ्यः (*āḍhayaḥ*) from Ved. ऋध् (*ṛdh*) to *prosper*, पठति (*paṭhati*) from Vedic पृथति (*pṛthati*), प्रथयति (*prathayati*), *to make known*, मुण्ड (*muṇḍa*) from Ved. मृद् (*mṛd*), *to rub soft*; कटि (*kaṭi*), compare कृमि (*kṛmi*).

This same law, differently worded, went by the name of the scholar FORTUNATOV. It is this: original *l* or *ḷ* + dental resulted in a change of the latter into a cerebral, the *l* or *ḷ* being dropped; and secondly, *r* or *ṛ* + dental remained unchanged. The *l* or *r* of course must be original Indo-Germanic.

(*a*) *l* or *ḷ* dental.

पटुः (*paṭuḥ*), Gr. πλατύς (*platús*) वटः (*vaṭah*), Lith. *váltis*

स्फट् (*sphaṭ*), O. H. G. *spaltan* जठरम् (*jaṭharam*), Goth. *kilþei*

किण (*kiṇa*), Lat. *callus* आणिः (*āṇiḥ*), Gr. ωλένη (*ōlénē*)

पाणिः (*pāṇiḥ*) Gr. παλάμη (*palamē*) पणः (*paṇaḥ*), Lith. *pẽlnas* (*þalám*) Lat. *palm* पटः, पटलम् (*paṭaḥ*, *paṭálam*) Old Sl. *platino*.

भाषते (*bhāṣate*), Lith. *balsas* पाषाणः (*pāṣāṇaḥ*) Gr. πελλα-
कुठार (*kuṭhāra*), Lat. *culter* λίθος (*pella-lithos*)

(*b*) *r* or *ṛ* dental.

कर्तामि (*kartāmi*), Lit. *kertu* वर्तामि (*vartāmi*), Lat. *verto*, Got. *wairta*

अर्धः (*ardhaḥ*), Lit. *ardyti* गर्धं (*gardhaḥ*):, Got. *gredus*

मर्दामि (*márdāmi*), Lat. *mordeo* पर्दामि (*párdāmi*), Germ. *farzen*

But this law was not accepted by linguists like WACKERNAGEL, BRUGMANN and BARTHOLOMAE ; and for very obvious reasons. For, the greater part of it is vitiated by exceptions *e. g.* गल्दा, फुल्त, पृथु, (*galdā, phulta, pṛthu*) Gr. πλατύς (*platús*); मृदु (*mṛdu*), Lat. *mollis*; गर्दभ (*gardabha*), Eng. *colt*; where *l* and dental do not show a lingual ; and कट (*kaṭa*) which goes back on कृत (*kṛta*), भट (*bhaṭa*), on भृत, (*bhṛta*), नट (*naṭa*) on नृत् (*nṛt*), which show a lingual as a result of *r* and dental.

P. II

This change could be traced within the Sanskrit language itself ; *e. g.*

(*c*) उडुप, उडुराज (*uḍupa, uḍurāja*) : Vedic ऋतुप, तडित् (*ṛtupa, taḍit*) Ved.
तळित् : तद् (*taḷit : tad*)

कुट्टिम (*kuṭṭima*) : ,, कृत्रिम भट्ट, भट्टि (*kṛtrima, bhaṭṭa, bhaṭṭi*)
: भर्तृ (*bhartṛ*)

घटते, निघण्टु (*ghaṭate, nighaṇṭu*): ,, ग्रन्थ्, निर्ग्रन्थ्, हाटक, (*granth, nirgranth, hāṭaka*),
: हिरण्य (*hiraṇya*)

वाट, वाटी (*vāṭa, vāṭī*) : Class वृति (*vṛti*)

कुट (also कूट?) (*kuṭa, kūṭa*) : कृत (*kṛta*)

Nir. 5, 24 पिता कुटस्य चर्षणिः (*pitā kuṭasya carṣaṇiḥ*):

The Prākrit origin of these words is clear. The Sk. *ṛ* is in the Pr. represented either by रि (*ri*) or अ, इ, उ, (*a, i, u*) as the following examples will show:—

रिद्धि, रिण, महरिसिः (*riddhī, riṇa, maharisiḥ*): ऋद्धि, ऋण, महर्षि (*ṛddhi, ṛṇa, maharṣi*)
रि : ऋ (*ri : ṛ*)

इसि, किस, गिद्ध (*isi, kisa, giddha*) : ऋषि, कृश, गृध्र (*ṛṣi, kṛśa, gṛdhra*)
इ : ऋ (*i* : *ṛ*)

कअ, मअ, वई (*kaa, maa, vaī*) : कृत, मृत, वृति (*kṛta, mṛta, vṛti*)
उ : ऋ (*u* : *ṛ*)

उदु, उज्जु उसह (*udu ujju, usaha*)
Mar. ऊत, उजू, उजवा) (*ūta ujjū, ujavā*) : ऋतु, ऋजु, वृषभ (*ṛtu, ṛju, vṛṣabha*)
उ : ऋ (*u* : *ṛ*)

Then the representation of the dentals following *r* or ऋ (*ṛ*) by linguals is very common in the Prākrits:—

(*a*) वुड-वृत (*vuḍa-vṛta*), कड-कृत (*kaḍa-kṛta*), मड-मृत (*maḍa-mṛta*).

(*b*) पुढम-प्रथम (*puḍhama-prathama*), दट्ठ-दृष्ट (*daṭṭha-dṛṣṭa*), अट्ठ-अर्थ (*aṭṭha-artha*), पडिमा-प्रतिमा (*paḍimā-pratimā*). We have also कढइ (*kaḍhai*) for कथति (*kvathati*).

From the first three examples we can see how the dental came to be cerebralized in the Prākrits. It was the preceding sound, which, while dropping lent its lingual character to the following dental. This took place also when the *r* and dental were separated by a vowel as in प्रथम (*prathama*), Pāli पठम (*paḍhama*); प्रति (*prati*), inscrip. पटि (*paṭi*). This tendency once created, became generalized and dentals were changed to linguals even where no *r* or *l* preceded. *e.g.*

पडति-पतति (*paḍati-patati*), पडाआ-पताका (*paḍāā-patākā*), वेडिस-वेतस कढइ (*veḍisa-vetasa kaḍhai*), in (*b*) above; ढक्केहि (*ḍhakkehi*), Pāli थकेति (*thaketi*), Sk. स्थगयति (*sthagayati*); डहइ (*ḍahai*), Mar. डाह (*ḍāha*), Sk. दहति (*dahati*); Mar. ढापण (*ḍhāpaṇa*) from धा.

OLDEST PHASE OF HE PALI & PRĀKRITS SIDE BY SIDE WITH THE VEDIC LANGUAGE :—From the above it will be seen, that the linguals in Vedic and later Sk. are due to the influence of the old Prakrits, which therefore must have existed side by side with the Vedic dialects. These gave us the later literary Prākrits.[1] Side by side with the language of the Vedas and the priests there was current even during the period of the production of the hymns, a language which was much more developed than the priestly language and which had the chief characteristics of the oldest phase of the mid-Indian dialects, called the Pāli-stage. BHANDARKAR[2] also agrees with WACKERNAGEL in calling Pāli the oldest Prākrit.

Words which in Vedic and later Sanskrit show a ण (*ṇa*), instead of a न (*na*), belong also to this class ; they are called Prākritisms.

(*d*) आणि पुण्य (*āṇi puṇya*), फण् (*phaṇ*), अन्वापनीफणत्[3] (*anvāpanīphaṇat*), काण, कर्ण, निपुण, घोणा (*kāṇa, karṇa, nipuṇa, ghoṇā*), वणिज् (*vaṇij*) (Ger. *waare*), गण् (*gaṇ*) (Gr. αγειρω, *ageirō*), कुणार (*kuṇāra*), (Gr. κύλλος *kúllos*), स्थाणु (*sthāṇu*) (Ger. *still*), पण् (*paṇ*) (Gr. πέρνημι *pernēmi*), कण (*kaṇa*), (class. कला (*kalā*), *a part.*).

अण (*aṇa*) (Gr. αλεω *aleō*), एण (*eṇa*) (Gr. ελαφος, *elaphos*), तूण, वेणु (*tūṇa, veṇu*) (Lat. *wallus*), वेणी (*veṇī*) (Lat. *willus*).

In शिथिल (*śithila*), the इ (*i*) shows that it is a Prākritism. The root has a *r*, which vocalised as *ṛ* gives the इ (*i*) in Prākrit, Compare शिढिल (*śiḍhila*) of Prākrit; also शिङ्घ (*śiṇgh*), (Mar. सुंगण, हुंगणें *suṁgaṇē huṁgaṇē*), from शृङ्घ समिध्द (*śṛṇgha*), (*samiddha*) from समृद्ध, इंगाल (*samṛddha*), (*iṁgāla*) (Naisadha

1. WACKERNAGEL, *Altindische Grammatik* p. XVIII,
2. *Philological lectures* p. 5.
3. *Rv.* IV 40, 4.

I. 9), Mar. इंगळ (*iṁgaḷa*), from अंगार (*aṁgāra*), are Prākritisms. कृच्छ्र (*kṛccha*) and गुच्छ (*guchha*) are also Prākritisms, where च्छ (*ccha*) represents Sk. प्स (*ps*), cf. Pāli अच्छरा (*acchara*) for Sk. अप्सरा (*apsarā*). तित्त (*titta*) for ततसु (*titasu*), प्रउग (*pauga*) for प्रयुग (*prayuga*), cf. गउओ (*gauo*) of Māhārāṣṭrī from गवय (*gavaya*), are also regarded as Prākritisms. In later Prākrits they are the rule; in the Veda their appearance is inexplicable, unless we presume, as some scholars do that they have crept into the Vedic language from an old Prākrit that was the basis of the mid-Indian Prākrits.

35. INFLECTION:—Much need not be said regarding morphology of the old Sanskrit. It does not much differ from that of classical Sanskrit which is familiar to us. However, we devote some short space to it for pointing out features common to other languages.

A. Unlike the classical languages of the West, Sanskrit has only three or four vowel stems, those in अ, इ, उ (*a, i, u*), and ऋ (*ṛ*), short and long. It does not have the *e* and *o* stems, like Greek and Latin, since Sanskrit has kept no distinction between *a, e,* and *o.* Of consonantal stems the old language shows many, like those in च्, क्, त्, थ् (*c, k, t, th*), radical द्, ध् (*d, dh*), and भ्, स् (*bh, s*), and श् (*ś*) and the derivative stems in वत्, तात् (*vat, tāt*) (उद्वत्, निवत्, सर्वतात्, देवतात्) (*udvat, nivat, sarvatāt, devatāt*), Gr. τήτ (*tēt*), इत्, उत्, त् (*it, ut, t*) (यकृत्), (*yakṛt*), अत् (*at*), and अन्त्, मन्त् (*ant, mant*), and वन्त्, अन्, मन्, इन्, मिन् (*vant, an, man, in, min*), and विन्, अर् (*vin, ar*), तर् (*tar*) etc.

The Sanskrit, like Greek, and Latin, has three genders, three numbers (there are traces left of the dual in Greek and Latin in words like δύω, (*duo*) although the *dual* as such is given up by these languages) and, unlike these, all the eight cases. The Greek has given up instrumental and ablative entirely, and confused locative and dative. For reasons see *supra.*

The terminations are the same for the three genders, excepting the nom. acc. voc. of the neuter, which in singular has no termination and in plural has इ. They are:—

For singular	For plural
Nom. *nil* or स् (*s*,)	अस् (*as*)
Acc. *m* or *ṁ*	न्स् (*ns*,) अस् (*as*) (*from ṇs after consonant*)
Instr. (*bhi*), *ṁ* (*this gives* आ, *ā*)	ऐस् (*ais*,) and* भिस् (*bhis*)
Dat. *ai* ए (*e*)	भ्यस् (*bhyas*)*
Abl. अस्, अत् (*as, at*) (*for* अ (*a*) *stems*)	,,
Gem. अस् (*as*), स् (*s*), स्य (*sya*) ,, ,,	आम्, (*ām*) नाम् (*nām*) (*after vowels*)
Loc. इ, (*i*) *no ending with lengthening of last syllable*	सु (*su*)

These terminations are an inheritance from the old Indo-Germanic idiom and are therefore found with proper phonetic changes in Greek and Latin and partly in Gothic also. A few paradigms are given by way of comparison:

I.* Singulars of अ–*o* stem.

	Sk.		Gr.		Lat.	Got.
Nom.	वृक:	(*vṛkaḥ*)	λύκος	(*lukos*)	*lupus*	*wulfs*
Voc.	वृक	(*vṛka*)	λύκε	(*lúke*)	*lupe*	*wulf*

*cf. Lat. *omnibus, virginibus.*

	Sk.		Gr.		Lat.	Got.
Acc.	वृकम्	(*vṛkam*)	λύκον	(*lúkon*)	*lupum*	*wulf*
Instr.	वृका वृकेण	(*vṛkā*), (*vṛkeṇa*)	πονω τω	(*ponō*) (adv.) (*Common in Homer*)	*sacrō*–(*sanctus*)	*wulfa*
Dat.	वृकाय पत्ये	(*vṛkāya*) (*patye*)	λύκω	(*lukō*)	*lupō*	*wulfa* *wolfe* (O.H.G.)
Abl.	वृकाद् राज्ञः	(*vṛkād*) (*rājñaḥ*)	*Fóικω* λύκοιο	(*Foikō*) (adv.) (*lúkoio*)	*lupō* (*d*)	*haþrō* (Av.) (*wulfis*)
Gen.	वृकस्य राज्ञः	(*vṛkasya*) (*rājñaḥ*)	λύκοιο λύκον	(*lúkoio*) (*lúkon*)	*lupī*	*wulfis*
Loc.	वृके	(*vṛke*)	ὄικοι	(*oikoi*) (adv.)	*bellī* (adv).	*wulfa*

II. Plurals of अ–*o* stem.

	Sk.		Gr.		Lat.	Got.
Nom.	वृकाः वृकासः (ved.)	(*vṛkāḥ*) (*vṛkāsaḥ*)	λύκοι	(*lúkoi*)	*lupī*	*wulfōs*
Acc.	वृकान्	(*vṛkān*)	λύκονs λύκουs	(*lúkons*) (*lúkous*)	*lupōs*	*wulfans*
Instr.	वृकैः वृकेभिः	(*vṛkaiḥ*) (*vṛkebhiḥ*)	λύκοις(*i*) λύκοισι	(*lúkoisi*)	*lupīs*	*wulfam*

	Sk.		Gr.		Lat.	Got.
Dat. Abl.	वृकेभ्यः	(*vṛkebhyaḥ*)	[λύκοις(ι)]	(*lúkoisi*)	(*lupīs*)	(*wulfam*)
Gen.	चरथाम् वृकाणाम्	(*caráthām*) (*vṛkāṇām*)	λύκων	(*lúkon*)	*deum* *deorum*	*wulfē*
Loc.	वृकेषु	(*vṛkeṣu*)	λύκοισι	(*lukoisī*)	*lupīs*	*wulfam*

III. Singulars of उ stem.

	Sk.		Gr.		Sk.		Lat.
Nom.	सूनुः	(*sūnúḥ*)	πῆχυς	(*pēchus*)	सूनवः	(*sūnávaḥ*)	*manūs*
Acc.	सूनुम्	(*sūnúm*)	πῆχυν	(*pēchun*)	सूनून्, पश्वः	(*sūnūn, paśváḥ*)	*manūs*
Instr.	कृत्वा	(*krátvā*)	(πῆχει)	(*pēchei*)	सूनुभिः	(*sūnúbhiḥ*)	(*manubus*)-*ibus*
Dat. Abl.	सूनवे, शिश्वे सूनोः, पश्वः	(*sūnáve, śiśve*) (*sūnóḥ, paśváḥ*)	(πῆχει) πῆχεος	(*pēchei*) (*pēcheos*)	सूनुभ्यः	(*sūnūnábhyaḥ*)	*manubus-ibus*
Gen.	सूनोः, पश्वः	(*sūnoḥ, paśváḥ*)	πῆχεος	(*pēcheos*)	सूनूनाम्, पश्वाम्	(*sūnūnám paṣvām*)	*manuum*,– –*manum*
Loc.	सूनौ, सूनवि	(*sunau, sūnávi*)	πῆχει	(*pēchei*)	सूनुषु	(*sūnúṣu*)	(*manubus*)

IV. Plurals of उ stem

V. Singulars of तृ-(*tṛ*) τερ stem.

	Sk.		Gr.	
Nom.	मार्ता	(*mātá*)	Μήτηρ	(*Mḗtēr*)
Acc.	मार्तरम्	(*mātáram*)	Μητέρα	(*Mētēra*)
Instr.	मात्रा	(*mātrā́*)	Μήτερι	(*Mḗtēri*)
Dat.	मात्रे'	(*mātrè*)	Μήτερι	(*Mḗtéri*)
Abl.	मार्तुः	(*mātúḥ*)	Μήτρος	(*Mḗtēros*)
Gen.	मार्तुः	(*mātúḥ*)	Μήτρος –τερος	(*Mḗtros*) (*Mḗtēros*)
Loc.	मार्तरि	(*mātári*)	Μήτερι	(*Mḗtēri*)

VI. Plurals of तृ-(*tṛ*) τερ stem.

	Sk.		Gr.	
Nom.	मार्तरः	(*mātáraḥ*)	Μητέρες	(*Mētéres*)
Acc.	मातॄः	(*mātṝḥ*)	Μητέρας	(*Metéras*)
Instr.	मातृभिः	(*mātṛbhiḥ*)	(Μητράσι)	(*Mētrási*)
Dat.	मातृभ्यः	(*mātṛbhyaḥ*)	(Μητράσι)	(*Mētrási*)
Abl.	मातृभ्यः	(*mātṛbhyaḥ*)	(Μητράσι)	(*Mētrási*)
Gen.	मातॄणाम्	(*mātṝṇām*)	Μητέρων	(*Mēterōn*)
Loc.	मातृषु	(*mātṛṣu*)	Μητράσι	(*Mētrási*)

VII. Singulars of न्त्-(*nt*) ντ stem.

	Sk.		Gr.	
Nom.	सँन्	(*sán*)	ὼν	(*ὸn*)
Acc.	सन्तम्	(*sántam*)	ὄντα	(*ὸnta*)
Instr.	सता	(*satā́*)	(ὄντι)	(*ὸnti*)
Dat.	सते	(*satè*)	(ὄντι)	(*ὸnti*)
Abl.	सतः	(*satáḥ*)	ὄντος	(*ὸntos*)
Gen.	सतः	(*satắḥ*)	ὄντος	(*ὸntos*)
Loc.	सति	(*satí*)	ὄντι	(*ὸnti*)

VIII. Plurals of न्त्-(*nt*) ντ stem

	Sk.		Gr.	
Nom.	सन्तः	(*sántaḥ*)	ὄντες	(*óntes*)
Acc.	सतः	(*satáḥ*)	ὄντας	(*óntas*)
Instr.	सद्भिः	(*sadbhiḥ*)	(οὖσι)	(*oûsi*)
Dat.	सद्भ्यः	(*sadbhyaḥ*)	(οὖσι)	(*oûsi*)
Abl.	,,	,,		
Gen.	सताम्	(*satám*)	ὄντων	(*ónton*)
Loc.	सत्सु	(*satsu*)	οὖσι	(*oûsi*)

b. CONJUGATION:—The Sanskrit conjugation also is as rich as the declension, and here too it has preserved most of the Indo-Germanic form material. Of the other languages only the Greek language nearly approaches it in the antiquity as well as wealth of verbal forms. Like the Greek, Sanskrit has the *active* and *medial* or middle voices; the *passive* voice of the Sanskrit was probably a later creation and did not exist in the original Indo-German idiom. Then there is a number of *modes* or *moods* in the old Vedic language as in Greek; later Sanskrit has lost some of them. The modes are the indicative, the optative, the imperative and the conjunctive or subjunctive. This last is seen only in the oldest Sanskrit. The optative and imperative too are in classical Sanskrit never used except, in the present tense. There are four tenses, the present, the perfect, the aorist and the future; the imperfect, so far as the stem and formation goes, is reckoned with the present for morphological purposes. There are special uses of these tenses elaborately put forth and explained by Sanskrit Grammarians.

The augment अ (*a*)–*e* plays an important part in the tense system of the Sanskrit and the Greek languages; the other languages, excepting the Armenian, do not show anything like it. It usually bore the accent and caused Guṇa or Vṛddhi. It was used to make the stem of the imperfect and aorist, the plue-perfect in Gr. and Vedic, and indicated past action[1]. The perfect stem is made up by reduplication, not by augment. It is to be noted that one of the numerous aorists has augment and reduplication of stem together.

All roots are in Sanskrit, as well as in Greek, divided into two great classes, according as they do or do not take before personal endings the vowel अ (*a*) *e* or *o* in Greek; they are called the *thematic* and the *non-thematic* classes; they are also otherwise known as conjugational and nonconju-

1. BRUGMANN, *Kurze Grammatik* p. 484.

gational. The former again fall into four subdivisions, the two अ, (*a*) the य् (*y*) and अय् (*ay*) classes; the latter into some six, the root, the reduplicated, the उ (*u*), the नु (*nu*), the ना (*nā*), and न् (*n*) classes. This distinction, with a variety of terminations, makes the study of Sanskrit so formidable to beginners.

The endings again are different for the active and the medial. Besides this distinction, there is another distinction into primary and secondary endings; the former are fuller, the latter seem to be abbreviations of these. Then there are distinct endings for the perfect and imperative. In this complexity, the Greek language almost equals Sanskrit.

The following comparative tables will how the great similarity in this respect between the Sanskrit and Greek languages.

I. Personal endings.

Active

Primary				Secondary			
मि	(*mi*)	μι, ω	(*mi, o*),	अम्	(*am*)	ν (for μ)	(*n, m*)
सि	(*si*)	σι, *s.*	(*si, s*)	स्	(*s*)	*s*	(*s*)
ति	(*ti*)	τι	(*ti*)	त्	(*t*)	τ	(*t*)
मस्	(*mas*)	μεν	(*men*)	म्	(*m*)	μεν	(*men*)
थ	(*tha*)	τε	(*tē*)	त्	(*t*)	τε	(*te*)
अन्ति, अति	(*anti, ati*)	ντι	(*nti*)	रन्, उस्	(*ran, us*)	ν (τ)	(*n*(*t*)

Middle

Primary				Secondary			
ए	(*e*)	μαι	(*mai*)	इ, अ	(*i, a*)	μην	(*mēn*)
से	(*se*)	σαι	(*sai*)	थः	(*thḥ*)	σο	(*so*)
ते	(*te*)	ται	(*tai*)	त	(*ta*)	το	(*to*)
महे	(*mahe*)	μεθα	(*metha*)	महि	(*mahi*)	μεθα	(*metha*)
ध्वे	(*dhve*)	σθε	(*sthe*)	ध्वम्	(*dhvam*)	σθα	(*stha*)
अन्ते, अते	(*ante, ate*)	νται	(*antai*)	अन्त, अत, रन्	(*anta, ata, ran*)	ντο	(*nto*)

Perfect					Perfect			
Active.			Middle.		Active.			Middle
अ (*a*)	α (*a*)		ए (*e*)	...	महे (*mahe*)	μεν (*men*)	महे (*mahe*)	...
थ (*tha*)	θα (*tha*)		से (*se*)	...	अ (*a*)	...	ध्वे (*dhve*)	...
अ (*a*)	ε (*e*)		ए (*e*)	...	उस् (*us*)	ατι (*ati*)	रे (*re*)	...

II. Conjugation of verbs in—अ (*a*), Gr. ε, *o*,

Present Active

भरामि	(*bhárāmi*)	φέρω	(*phéro*)	भरामः	(*bhárāmaḥ*)	φέρομες	(*phéromes*)
भरसि	(*bhárasi*)	φέρεις	(*phereis*)	भरथ	(*bháratha*)	φέρετε	(*phérete*)
भरति	(*bhárati*)	φέρει (τ)	(*phereí*)	भरन्ति	(*bháranti*)	φέροντι	(*phéronti*)

Middle

भरे	(*bháre*)	φέρομαι	(*phéromai*)
भरसे	(*bhárase*)	φέρεσαι (old)	(*phéresai*)
भरते	(*bhárate*)	φέρεται	(*phéretai*)

Imperfect Active

अभरम्	(*ábharam*)	ἔφερον	(*épheron*)	अभराम	(*ábharāma*)	ἐφέρομεν	(*ephéromen*)
अभरः	(*ábharaḥ*)	ἔφερες	(*épheres*)	अभरत	(*ábharata*)	ἐφέρετε	(*ephérete*)
अभरत्	(*ábharat*)	ἔφερε (-τ)	(*épheret*)	अभरन् (त्)	(*ábharan (t)*)	ἔφερον (τ)	(*ephron*)

Middle

अभरे	(*ábhare*)	ἐφερόμην	(*ephoromēn*)
अभरथ	(*ábharatha*)	ἐφέρεσο	(*éphereso*)
अभरत	(*ábharata*)	ἐφέρετο	(*ephereto*)

III. Conjugation of verbs without thematic vowel

Present Active

दधामि	(*dádhāmi*)	τίθημι	(*tithēmi*)	दध्मः	(*dadhmáḥ*)	τίθεμεν	(*títhemen*)
दधासि	(*dádhāsi*)	τίθης	(*títhēs*)	धत्त	(*dhatta*)	τίθετε	(*tithete*)
दधाति	(*dádhāti*)	τίθησι(τι)	(*títhēsi* (*ti*)	दधति	(*dádhati*)	τίθεντι	(*títhenti*)

Middle

दधे'	(*dadhé*)	τίθεμαι	(*títhemai*)	दध्महे	(*dádhmahe*)	τιθέμεθα	(*títhemetha*)
धत्से'	(*dhatsé*)	τίθεσαι	(*tithesai*)	दद्ध्वे	(*dadhvee*)	τίθεσθε	(*títhesthe*)
धत्ते'	(*dhatté*)	τίθεται	(*títhetai*)	दधते	(*dádhate*)	τίθενται	(*títhentai*)

Imperfect Active

अदधाम्	(*ádadhām*)	ἐτίθην	(*etithēn*)	अदध्म	(*ádadhma*)	ἐτίθεμεν	(*etithémen*)
अदधाः	(*ádadhāḥ*)	ἐτίθεις	(*etítheis*)	अधत्त	(*ádhatta*)	ἐτίθετο	(*etítheto*)
अदधात्	(*ádadhāt*)	ἐτίθει	(*etíthei*)	अदधुः	(*ádadhuḥ*)	ἔτιθεν	(*etíthen*)

Middle

अदधि	(*ádadhi*)	ἐτίθεμην	(*étithémēn*)	अदध्महि	(*ádadhmahi*)	ἐτίθεμεθα	(*etíthemetha*)
अधत्थाः	(*ádhatthāḥ*)	ἐτίθεσο	(*étítheso*)	अदध्वम्	(*ádhadhvam*)	ἐτιθεσθα	(*etíthestha*)
अधत्त	(*ádhatta*)	ἐτίθετο	(*etítheto*)	अदधत	(*ádadhata*)	ἐτιθεντο	(*etíthen*)

Older forms are ἐτίθης (*etethēs*) and ἐτίθη (*etithē*)

IV. Conjugation of root verbs.

Present.

ओस्मि	(*ásmi*)	ἔιμι / ἔισμ	(*eimi*) (*esmi*)	स्मः	(*smáḥ*)	ἐσμέν	(*esmén*)
असि	(*ási*)	εἶ (from εσι)	(*ési, ei*)	स्थः	(*sthá ḥ*)	ἐστέ	(*esté*)
अस्ति	(*ásti*)	ἔστι	(*esti*)	सन्ति	(*sánti*)	ἐισί / ἐντί	(*eisi*) (*énti*)

Imperfect

आसम्	(*ā́sam*)	ἦα	(*ēa*)	आस्म	(*ā́sma*)	ἦμεν	(*ēmen*)
आसीः	(*ā́sīḥ*)	ἦσθα	(*estha*)	आस्त	(*ā́sta*)	ἦστε	(*ēste*)
आसीत्	(*ā́sīt*)	ἦσ (τ)		आसन्	(*ā́san*)	ἦν	(*ēn*)

V. *The Aorists*:—In Sanskrit, as in Greek, there are several formations of this name; the root aorist, the *s* aorist and the passive aorist. Then in Sanskrit there is the reduplicated aorist. As the formation of these is so divergent, the common name must be due to the peculiar king of the action denoted. The agreement between the Sanskrit and the Greek is remarkable e. g.

Root-aorists:—अस्थात् (*ásthāt*), ἔστην (*èsten*); πλῆτο (*plēto*); the root ज्ञा (*jñā*) forms root-aorist ἔγνων (*ègnōn*) and not *s* aorist as in Sk. अधात् (*ádhāt*), अदात् (*ádāt*), Gr. ἔθηκε (*èthēke*), ἔδωκα (*èdōke*), (the *k* which is unknown to the Sanskrit, remains unexplained).[1]

s-aorists:—अप्राः (*áprāḥ*) (from अप्रास्+स्) (*aprās+s*), अप्राः (*áprāḥ*) (from अप्रास्+त् (*aprās+ta*), अप्रास्म (*áprāsma*), अप्रास्त (*áprāsta*), (अप्रासुः *áprāsuḥ*); Gr. ἔδειξα, ἔδειξας, ἔδειξε, ἐδείξαμεν, ἐδείξατε, εδείξαν, (*ēdeiza, èdeizas, èdeize, èdeizamen, èdeizate, èdeizan*).

Middle:—अरुत्सि (*árutsi*), अरुत्थाः (*áruttāḥ*), अरुत्त (*árutta*), अरुत्स्महि (*árutsmahi*), अरुद्धम् (*áruddham*), अरुत्सत (*árutsata*), Gr. ἐδειξάμην, ἐδείξα (σο), ἐδειξατο, ἐδειξάμεθα, ἐδειξάσθε, ἐδείξαντο (*èdeizámin, èdeiza (so), èdeizato, èdeizámetha, èdeizasthe, êdezanto*).

The question as to the origin of the aorist suffix, has occupied philologists since BOPP's time. BOPP saw in it the past[2] tense of the Indg. verbum substantivum *esṃ*. Phonetically there is nothing against it. It also finds support from other languages *e. g.* Latin and Goth., where the suffix of the past tense is nothing else than the past forms of roots भू (*bhū*) and *do* (Sk. धा, *dhā*) respectively. Lat. *ama-bam, ama-bat*; Goth. *huggride*, O. H. G. *hungerede*, Eng. *hungered*. The *s* would have to be looked upon as remnant of the imperfect, and that is the only flaw in Bopp's theory.

VI. Perfect active.

Singular.		Plural.	
वेद (*vèda*)	Foῖδα (*Foîda*)	विद्म (*vidmá*)	Fῖδμεν (*Fidmen*)
वेत्थ (*véttha*)	Foῖσθα (*Foîstha*)	विद (*vidá*)	Fῖστε (*Fiste*)
वेद (*vèda*)	Foῖδε (*Foide*)	विदुः (*vidúḥ*)	(Fῖσασι) (*Fisasi*)

1. HIRT, *Handbuch der Gr. Laut-und Formenlehre* p. 549.
2. HIRT, *op. cit.* p. 550.

Gothic

wait *witum*
waist *wit-up*
wait *wit-un*

Middle.

1st. तुतुदे (*tutudé*) Lat. *tutudī*
3rd. तुतुदे (*tutudé*) ...

It will be seen that the perfect has only one type, as against the manifold types shown by the present-aorist. The perfect is formed immediately from the root, without any augment or sign or infix. Every root can have its perfect, with but very few exceptions. The perfect is altogether non-thematic. The peculiarities are that the first syllable takes reduplication, and the root shows the *o* grade, where the reduplicated syllable shows an *e*, अ (*a*). This is clearly shown by forms like चकार, जघान, (*cákāra, jághāna*), which show palatalization in the first syllable; Cf. also γέγονα, (*gégona*) δέδορκα (*dédorka*).

VII. *The future system*:—In Sanskrit as in Greek the future is made up by the addition of the suffix *s*. In Greek it has been dropped in certain cases, thus giving rise to a second type of future.

देक्ष्यामि (*dekṣyāmi*) Gr. δείξω (*deízo*), from दिश्, (*diś deik*); रेक्ष्यामि (*rekṣyāmi*), Gr. λείψω (*leipso*). The Lithuanian language also shows this *s* future; *e. g. gélšu* from *gelu.* to do harm; *duršu*, from *duru.* The Latin again takes the aid of an auxiliary, as in the aorist and has forms like *ama-bo, amabis, amabit.* Gothic has lost the old future, just as it has lost the old aorist. Most of the modern European languages have given up the old future and have substituted an auxiliary meaning '*to wish*'. The Rumanian[1] has *volo*, the Germ. *wollen*, Eng. *will.*

1 ZAUNER, *Romanische Sprach-geschicte* I p. 165.

VIII. The distinction between temporal stems and modal stems is not difficult to understand. We have seen sufficiently clearly how different temporal stems were made up. Of the four modes or moods the indicative is marked by absence of any further addition to the temporal stem; भर्, (*bhar*) φέρο, or φέρε, (*phéro, phéro*) बभर् (*babhar*), γεγον (*gegon*), stems of present, aorist, perfect, are also the stems of the indicative. And it is only natural because it is the simplest mode of all, only asserting or denying something. The imperative too does not have any special stem; very often, as in Sanskrit, it borrows stems and forms of other moods.

The conjunctive and optative have special stems; the former is characterized by the addition of a thematic अ, (*a*) *e*, (*o*) to the temporal stem, the latter by the addition of a secondary suffix या (*yā*), ई (*ī*), added on to the base without thematic vowel.

In the case of the nonthematic type of roots, the conjunctive is easily formed by adding अ, (*a*) *e, o* to the root *e. g.*

Pres. ind. अस्ति, (*ásti*) Lat. *es-t*; conj. असति, (*ásati*) Av. *aṇhaiti*, Lat. *er-i-t.*

Aor. conj. नेषति, नेषत्, (*néṣati, néṣat*) (with root vowel ने (*ne*) as in *middle*, not नै (*nai* as in *active*); Gr. τεῖσ-ο-μεν (*teís-o-men*), τεῖσ-ε-τε (where नेष् (*neṣ*) τεῖσ are bases of the sigmatic aorist).

Pref. conj. ततनति, ततनत्, (*tatánati, tatánat*) Gr. πεποίθ-ο-μεν (*pepoíth-o-men*). (*In Homer, εἴδετε* or *ἴδομεν*)

In the case of the thematic type of roots, the modal sign अ, (*a*) *e, o* appears to combine with the last vowel of the stem *e. g.*

Conj. भरान्, भराति, (*bhárān, bhárāti*) Gr. φέρω-μεν, φερη-τε (*phéro-men, phérē-te*), Lat. *ferēs*, for indicative भरति, (*bhárati*) φέρομεν (*phéromen*) etc.

The optative sign for non-thematic roots is या, य, (*yā, ya*) *yē, yə*, added on to the weak grade of the root; that for the non-thematic roots is ई, (*ī*) which combines with the thematic vowel making a diphthong with it. Secondary personal endings are then added on to the base formed in this way.

स्यात्, स्युः (*syát, syúḥ*), also सियात्, सियुः (*siyāt, siyuḥ*) Lat. *s-iē-s, s-ī-mus.* दद्यात् (*dadyāt*), दद्युः (*dadyúḥ*), Gr. διδο-ίη-ν (*dido-íē-n*), διδο-ῖ-μεν (*dido-î-men*).
भरेत् (*bháret*), Gr. φέροι (*phéroi*), Goth. *bairai*; दृशेत् (*dṛśét*), Gr. δράκοι (*drákoi*).

IX. There is what is called secondary conjugation. This comprises desiderative, intensive or frequentative, causative, denominative, which may be found in any descriptive Grammar. Cf. MACDONELL, *Vedic Grammar* p. 387 ff.

Of verbal derivatives, both Sanskrit and Greek show a variety. We have already seen how the Vedic Sanskrit possessed more than half a dozen infinitive forms, three or four absolutive forms, three forms for the present participle, not to speak of any amount of verbal nouns. For these, refer to WHITNEY, *Sanskrit Grammar* p. 341 ff.

PART IV

PĀLI AND THE INSCRIPTIONAL PRĀKRITS

36. CHARACTER OF THE PĀLI.—The next stage in the development of the Indian branch of the Indo-German languages is the Pāli. This is a name given to the sacred language of the canon of Southern Buddhism. The name itself is a puzzle to many. European scholars, derive it from *prali*, a row or line of leaves of a book, then the book itself; and lastly the canon embodied in the book and its language. Another but a hardly likely derivation[1] is from प्रकट, पाअड (*prakaṭa, pāaḍa*), पाअल, पाल (*pāala, pāla*), according to which Pāli means language of the common people. KOSAMBI[2] a Buddhist scholar, thinks, that the name is derived from the root पाल् (*pāl*) to protect, to preserve, and originally means the books or literature in which the Buddhist canon is preserved. The derivation apart, he rightly points out that Buddhaghośa, the author of a commentary on अट्ठकथा, (*aṭṭhakathā*) repeatedly refers to the *Tipitaka* or its teachings by the name Pāli.

That this Pāli *i. e.* the dialect at the root of the literary Pāli, called by European scholars the Pāli-stufe[3] and the dialects of the oldest available inscriptions, could not be directly traced even to *Vedic* Sanskrit is clear from phonological reasons adduced above[4]. There are besides several

1. RAJWADE, *Introduction to Jñāneśvarī.*
2. पालिभाषेचा कालनिर्णय, (*pālibhāṣecā kālanirṇaya*) *Vividha ñānavistār*, 41. 139. Cf. also CHILDER'S *Pāli Dictionary*, Introduction.
3. JACOBI, *Erzählungen.* p. XI.
4. See *supra*, p. 147–48.

formantic elements that could hardly be traced to the Vedic dialect. As examples might be quoted the absolutive suffixes तु (*tu*) of the Dhauli[1] version of Aśoka's edict number I and तूण दूण, (*tūṇa, dūṇa*) and ऊण (*ūṇa*) of the Māhārāṣṭrī Prakrit. We cannot trace them back to Sk. त्वा, त्वानम् (*tvā, tvānam*), but must regard them as collateral forms of another closely related dialect. In the same way the narrative perfect above referred to is seen to a certain extent in the *Vedic*, and regularly in the later Brahmanic language, but not in the Pāli and the Prākrits. Except अयाय, बभूव (*ayāya, babhūva*), and one or two other stray forms, which are to be regarded as Sanskritisms, the Pāli has not got the perfect.[2] We shall have therefore to understand the relationship between the *Vedic* Sanskrit and the Pāli and Prākrits in some such manner. They are the direct descendants of a dialect, which was spoken in ancient India, side by side with the *Vedic* dialect, with which it was very closely related.

But the differences between the old Sanskrit and the Pāli and Prākrits are not so great as to warrant the conclusion that they do not represent successive steps in the development of the *Vedic* language. Some peculiarities pointed out above may perhaps be more provincialisms than dialectic. The languages of the inscriptions themselves do not lend any support to the theory that there existed in those hoary days a dialect which differed *very considerably* from the *Vedic* dialect[3].

A. *Causes of phonetic change shown by Pāli etc.*:—If then the Pāli and the inscriptional dialects are descended from *Vedic* Sanskrit, or at least from a dialect that was very close to it, how do we account for such a change in the phonology as is shown in the assimilation of conjuncts, simplifying a

1. BUHLER, *Aśoka Inschriften*, p. 89.

2. Dr. BHANDARKAR, *op cit* 59, was evidently misled by Kaccāyano, who, slavishly following the Kātantra, gives perfect endings for Pāli.

3. MEILLET, *Einführung* p. 26; FRANKE, *Pāli und Sanskrit* p. 150

conjunct after a long vowel or shortening an original long one before a conjunct, the total disappearance of the vowels *ṛ*, and *ḷ*?

The Indian Āryans entered into India through the North-Western Frontier and found a new fertile land here. Thus geographical and climatic conditions must have worked together with other causes of phonetic growth or decay. Apparently however, it is strange that the same people ahould find it difficult, when they were in different environments, to pronounce the original conjuncts and sounds like *ṛ* and *ḷ*.

But the whole thing becomes clear, when we imagine to ourselves all that must have happened when the Indian Āryans penetrated into India. They did not find before them a desolate, isolated world or a world inhabited by a handful of negroes. Very probably they conquered land inch by inch from the Dravidians, and such other people who were in possession of the land before them. They inflicted not only their rule but also their superior language upon these natives, to whom it was a strange and difficult idiom. They learnt the new language just as children learn their mother tongue; whatever was rough they softened, whatever was difficult they made easy. The process of this acquisition is strictly psychological, as explained in the first part of this book. Thus all the phenomena called dissimilation metathesis, assimilation, etc., are seen to play a considerable role in phonology and what we know as analogy formation in morphology. The Āryan dialects were thus corrupted in the mouth of the original inhabitants and these corruptions reacted upon the speech of the Āryan settlers. This is the most plausible explanation[1] of the growth of the Pāli and the Prākrits.

The part of the *Vedic* or of its sister dialect that was most affected in the manner described above was phonology. The

1. BHANDARKAR, *Philological Lectures* p. 46, 47.

following passage taken at random from the *Gajakumbha-jātaka*[1], is an illustration.

अतीते बाराणसियम् ब्रह्मदत्ते रज्जम् कारेन्ते बोधिसत्तो तस्स अमच्चरतनं अहोसि. बाराणसीराजा आलसियजातिको अहोसि. बोधिसत्तो राजानं बोधेस्सामीति एकम् उपायम् उपधारेन्तो चरति. अथ एकदिवसं राजा उय्यानं गन्त्वा अमच्चपरिवुतो तत्थ विचरन्तो एकं गजकुम्भम् आलसियम् पस्सि. तथारूपा किर आलसिया सकलदिवसं गच्छन्तापि एकाङ्गुलद्वंगुलमेत्तं एव गच्छन्ति. राजा तं दिस्वा वयस्स को नाम एसो ति पुच्छि. बोधिसत्तो गजकुम्भो नाम एस महाराज आलसियो, एवरूपो हि सकलदिवसं गच्छन्तो पि एकाङ्गुलद्वंगुलमत्तम् एव गच्छतीति वत्त्वा तेन सद्धिं सल्लपन्तो, अम्भो गजकुम्भ तुम्हकम् दण्डगमनम्, इमास्सि अरण्णे दावग्गिम्हि उट्ठिते किं करोथा ति तत्त्वा पठमम् गाथम् आह.

atīte Bārāṇasiyaṁ Bramhadatte rajjam Kārente Bodhisatto tassa amaccaratanaṁ ahosi. Bārāṇasīrājā ālasiyajātiko ahosi. Bodhisatto rājānaṁ bodhessāmīti ekam upāyam upadhārento carati. Atha ekadivasaṁ rājā uyyānaṁ gantvā amaccaparivuto tattha Vicaranto ekaṁ Gajakumbham ālasiyam passi. Tathārūpā kira ālasiyā sakaladivasaṁ gacchantāpi ekāṅguladvaṁgulamettaṁ eva gacchanti rājā taṁ disvā vayassa ko nāma eso ti pucchi. Bodhisatto Gajakumbho nāma esa mahārāja ālasiyo evarūpo hi Sakaladivasaṁ gacchanto pi ekāṅguladvaṁgulamattam eva gacchatīti vatvā tena saddhiṁ sallapanto, ambho Gajakumbha tumhakam daṇḍhagamnam imāssiṁ araṇṇe dāvaggimhi uṭṭite kiṁ karothā ti tattvā paṭhamam gāthaṁ āha.

Even a cursory examination of this passage shows (*a*) the phonetic peculiarities of the Pāli, and (*b*) the remarkable resemblance between Pāli and Sanskrit inflection and also syntax:—

(*a*) बाराणसियम् (*Bārāṇasiyam*) shows the change of व (*va*) into ब (*ba*), the स्थान (*sthāna*) of which is the same; then there is anaptyxis of स्याम् (*syām*), with shortening of the final vowel.

रज्जम् (*rajjam*) shows assimilation of य् (*y*) to ज् (*j*), and the shortening of the long vowel before the conjunct. The

1. FAUSBÖLL, *Jātaka* III 140.

same assimilation seen in सत्तो, तस्स, अमच्च, स्सामि, उय्यानं (*satto, tassa, amacca, ssāmi, uyyānaṁ*) shows regressive assimilation.

अमच्च (*amacca*) shows shortening of long आ (*ā*) before conjunct, complete palatalization of य (*ya*), and assimilation of the preceding त् (*t*) to it. मत्तम् (*mattam*) also is due to shortening before conjunct and assimilation.

आलसिय (*ālasiya*) shows a change in the consonant, apparently due to no cause. The क् (*k*) is first vocalized *i. e.* becomes अ (*a*), and the semivowel serves as a bridge between the preceding इ (*i*) and the new अ (*a.*) This is what is called यश्रुति (*yaśruti*) in the later Prākrits. It should be noted, that with the exception of such stray cases, the Pāli has preserved the old Sanskrit consonants in tact, whereas later in the literary Prākrits many of the consonants, especially if they are between two vowels, are replaced by अ (*a*). This, coupled with the preservation, of most of the Sanskrit inflections, places it beyond doubt that Pāli is older[1] than the Prākrits.

एसो (*eso*) shows the change of the Sanskrit ष् (*ṣ*) into स् (*s*), and of the स् (*s*) of the termination into an invariable ओ (*o*), *e. g.* परिवुतो (*parivuto*); the final अस् (*as*) regularly becomes ओ (*o*) before sonant consonants. Ed. गच्छन्तो (*gacchanto*), आलसियजातिको (*ālasiyajātiko*) etc.

द्वंगुल (*duaṁgula*) has dropped the inconvenient य् (*y*).

पठमम् (*paṭhamam*) shows that the lingual र् (*r*), which has dropped, has lent its character to the following consonant, a phenomenon that is common in the Prākrits and seen also to have effect on Sanskrit.

इमस्सिं (*imassiṁ*) and दावग्गिम्हि (*dàvaggimhi*) show a double representation of the same Sanskrit स्मिन् (*smin*); in the former there is assimilation to the preceding स् (*s*) in the latter there is metathesis first and change of स् (*s*) to ह् (*h*) afterwards.

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1. JACOBI, *Āyārāṇga Sutta* part I p. VIII.

(*b*) The inflectional resemblances between Pāḷi and Sanskrit are obvious :—

बोधिसत्तो (*Bodhisatto*), राजा (*rājā*), राजानं (*rājānaṁ*), महाराज (*mahārāja*), गजकुम्भ (*gajakumbha*) are just the same as in Sanskrit. रतनं (*ratanaṁ*), रज्जम् (*rajjam*), बोधिसत्तं (*bodhisattaṁ*), दिवसं (*divasaṁ*), उय्यानं (*uyyānaṁ*) apart from the phonetic change, are identical with Sk. inflection of these words.

तं (*taṁ*), तस्स (*tassa*), वयस्स (*vayassa*), अतीते (*atīte*), इमस्सिं (*imassiṁ*), उट्ठिते (*uṭṭhite*), are in perfect agreement, with their Sanskrit originals.

चरति (*Carati*), गच्छन्ति (*gachhanti*), आह (*āha*), बोधेस्सामि (*bodhessāmi*) are the same as in Sanskrit, and अहोसि (*ahosi*) पस्सि (*passi*), पुच्छि (*pucchi*) although differing a bit in formation, are aorist or past forms corresponding to Sanskrit aorists or imperfects, sometimes with but often without the augment. The Sanskrit augment of the preterite, like the perfect, is thus on its way to disappear in Pāli and has totally disappeared in the Prākrits and the modern vernaculars. This also clearly shows the relationship, in time, of the two to each other.

कारेन्तो (*kārento*), उपधारेन्तो (*upadhārento*), गच्छन्ता, गन्त्वा, वत्वा, उट्ठित (*gacchantā, gantvā, vatvā, uṭṭhita*) are verbal derivatives, the close similarity of which with like Sanskrit froms is almost too transparent.

37. PHONOLOGY OF THE PĀLI :—The Pāli possesses all the vowels of Sanskrit, with the exception of ऋ, ऌ, ऐ (*ṛ, ḷ, e*) and औ (*au*).

1. Normal vowels :—

(*a*) अग्गि-अग्नि (*aggi-agni*), अग्ग-अग्र (*agga-agra*), अच्चुत-अच्युत (*accuta-acyuta*), अट्ठ-अर्थ (*aṭṭha-artha*), आकास-आकाश (*ākāsa-ākāśa*), आसङ्क-आशङ्क (*āsaṅka-āśaṅka*), आसाळ्ही-आषाढी (*āsāḷhī-āṣāḍhī*), सावको-श्रावकः (*sāvako-śrāvakaḥ*),

(*b*) इन्द-इन्द्र (*inda-indra*), इतिवुत्तक-इतिवृत्तक (*itivuttaka-itivṛttaka*), इसिगिलि-ऋषिगिरि (*isigili-ṛṣigiri*), ईसधर-ईशधर (*īsadhara-īsadhara*), गोतमी-गौतमी (*gotamī-gautamī*).

(*c*) उक्कण्ठित-उत्कण्ठित (*ukkaṇṭhita-utkaṇṭhita*), भिक्खु-भिक्षु (*bhikkhu-bhikṣu*), उग्ग-उग्र (*ugga-ugra*), उप्पलवण्णा-उत्पलवर्णा (*uppalavaṃṇā-utpalavarṇā*), खुज्ज-कुब्ज (*khujja-kubja*),

(*d*) एक-एक (*eka-eka*), एणी एणी (*eṇī-eṇī*), खेम-क्षेम (*khema-kṣema*),

(*e*) पुरोहितो-पुरोहितः (*purohito-purohitaḥ*), गोपालपुत्तो-गोपालपुत्रः (*gopālaputto-gopalaputraḥ*), कपोतो-कपोतः (*kapoto-kapotaḥ*),

2. ऋ (*ṛ*) and ऌ (*ḷ*) are respresented in one of the following ways:—

(*a*) by अ (*a*) in गह-गृह (*gaha-gṛha*), अच्छ-ऋक्ष (*achha-ṛkṣa*), मच्चु-मृत्यु (*maccu-mṛtyu*), मट्ठ-मृष्ट (*maṭṭha-mṛṣṭa*),

(*b*) by इ (*i*) in इण-ऋण (*iṇa-ṛṇa*), किस-कृश (*kisa-kṛśa*) सिगाल-शृगाल (*sigāla-śṛgāla*), इसि-ऋषि (*isi-ṛṣi*).

(*c*) by उ (*u*) in उसभ-ऋषभ (*usabha-ṛṣabha*), पुच्छि-पृच्छ् (*puchhi-pṛchh*), परिवुतो-परिवृतः (*parivuto-parivṛtaḥ*). In this case a labial before or after the ऋ (*ṛ*) is responsible for the change.

(*d*) by रि (*ri*) or रु (*ru*) in इरित्विज-ऋत्विज् (*iritvija-ṛtvij*), रिते-ऋते (*rite-ṛte*), रुक्ख-वृक्ष (*rukkha-vṛkṣa*).

3. ऐ (*ai*) and औ (*au*) become ए (*e*) and ओ (*o*) respectively.

(ए: चेतियगिरि-चैत्यगिरि, एरावण-ऐरावण, केलस-कैलास, वेदेह-वैदेह; ओ: गोतम-गौतम, ओसध-औषध, कोरव्य कौरव्य, सोविर (रट्ठ)-सौवीरराष्ट्र). (*e*): *cetiyagiri-caityagiri, erāvaṇa-*

airāvaṇa, kelāsa–kailāsa, vedeha–vaideha; o: gotama–gautama, osadha–auṣadha, koravya–kauravya, sovira (raṭṭha)–sauvīrarāṣṭra).

4. Change of vowels :—

(*a*) अ (*a*) becomes ए (*e*), हेट्ठा–अधस्तात् (*heṭṭhā–adhastāt*), अन्तेपुर–अन्तःपुर (*antepura–antaḥpura*), सेय्या–शय्या (*seyyā–śayyā*), पेय्याल–परियाय (*peyyāla–pariyāya*); or इ (*i*), तिपु–त्रपु (*tipu–trapu*), तिमिस्सा–तमिस्रा (*timissā–tamisrā*); or उ (*u*), chiefly beside labial, पण्णुवीसति–पञ्चविंशति (*paṇṇuvīsati–pañcaviṁśati*), निमुज्जति–निमज्जति (*nimujjati–nimajjati*), पज्जुण्ण–पर्जन्य (*pajjuṇṇa–parjanya*); or rarely ओ (*o*) सम्मोस संमर्ष (*sammosa–sammarṣa*), तिरोक्ख–तिरस्क (*tirokkha–tiraska*).

(*b*) आ (*a*) becomes ए (*e*), पारेवत–पारावत (*pārevata–pārāvata*), मेत्त–मात्र (*metta–mātra*), आचेर–आचार्य (*acera–ācārya*); or ओ (*o*), परोवर–परावर (*parovara–parāvara*), दोसो–दोषा (*doso–doṣā*); or ऊ, (*u*) especially in connection with roots गा (*gā*) to go and ज्ञा (*jñā*) to know, अद्धगू–अध्वग (*addhagū–adhvaga*), सब्बञ्ञू–सर्वज्ञः (*sabbaññū–sarvajñaḥ*).

(*c*) इ (*i*) becomes अ (*a*), mostly as a result of dissimlation), घरणी–गृहिणी (*gharaṇī–gṛhiṇī*), पठवी–पृथिवी (*paṭhavī–pṛthivī*); or ए (*e*), एत्त इयत् (*etta–iyat*) मञ्जेट्ठ–मञ्जिष्ठ (*mañjeṭṭha–mañjiṣṭha*); or उ (*u*) राजुल–राजिल (*rājula–rājila*), गेरुक–गैरिक (*geruka–gairika*), ई (*i*) also is subject to the same changes; *e. g.* खेल–क्रीडा (*khela–krīḍa*), गहेत्वा–गृहीत्वा (*gahetvā–gṛhītvā*).

(*d*) उ (*u*) becomes अ (*a*), अगरु–अगुरु (*agaru–aguru*), or ओ (*o*), ओक्का–उल्का (*okkā–ulkā*), अनोपम–अनुपम (*anopama–anupama*).

(*e*) ए (*e*) becomes इ (*i*) before double consonants, पसिव्वक-प्रसेवक (*pasibbaka-prasevaka*), पटिविस्सक-प्रतिवेशक (*paṭivissaka-praviśaka*).

(*f*) ओ (*o*) becomes उ (*u*) in the same manner, जुण्हा-ज्योत्स्ना (*juṇhā-jyostnā*), विसूक-विशोक *visūka-viśoka*) The ओ (*o*) due to contraction of अव् (*av*) also changes; उस्साव-अवश्याय (*ussāva-avaśyāya*).

5. The law of quantity:—Long vowels are generally shortened before conjunct consonants:—

अज्जवम्-आर्जवम्, पुण्ण (नदी)-पूर्ण, तित्थ-तीर्थ, पत्ती-प्राप्ती, अत्तणो-आत्मन:, सक्क-शाक्य, सन्त-शान्त, दन्त-दान्त, वन्त-वान्त, गहिस्सति-गृहीष्यति.

ajjavam-ārjavam, puṇṇa (*nadī*)-*pūrṇa, tittha-tīrtha, pattī-prāptī, attaṇo-ātmanaḥ, sakna-śākya, saut-śānta, danta-dānta, vanta-vānta, gahissati-gṛhīṣyati.*

(*a*) Sometime the double consonant is simplified and the long vowel is kept, thus preserving the quantity of the word as a whole.

आजव-आर्जव (*ājava-ārjava*), ऊमि (also ऊम्मि)-ऊर्मि (*ūmi*) (*ūmmi*)-(*ūrmi*), अहासि-अहार्षीत् (*ahāsi-ahārṣīt*), ऊहसन-उद् + हस्, ऊहत-उद्धत (*ūhasana-ud* + *has*), (*ūhata-uddhata*).

(*b*) Sometimes, however, a long vowel is shortened and as compensation a following single consonant is doubled.

बहुण्णम्-बहूनाम्, निड्ड-नीड, जण्णु-जानु, पञ्चण्णम्-पञ्चानाम्, उण्हिस्स-उष्णीष, (*bahuṇṇam-bahūnām, niḍḍha-nīḍa, jaṇṇu-jānu, pañccaṇṇam-pañcānām, uṇhissa-uṣṇīṣa*).

(*c*) As a corollary of the above, the vowels ए (*e*) and ओ (*o*), are to be regarded as naturally short before a double consonant and long before a single one *e g.* सेय्या, उपेक्खा, ओस्सजति, योब्बन, मोक्ख (*seyyā, upekkhā, ossajati, yobbana, mokkha*).

(*d*) Often however, long vowels are shortened without any compensation.

आगहित–आग्रहीत, संखत–संख्यात, पञ्ञवा–प्रज्ञावान्, अप्पतित–अप्रतीत, पानिय–पानीय, आचरिय (also आचेर)–आचार्य (*āgahita–āgṛhīta, saṁkhata–saṁkhyāta, paññavā–prajñāvān, appatita–apratīta, pāniya–pānīya, ācariya* (*ācera*)*–ācārya*).

(*e*) Short vowels are lengthened, mostly in the case of prepositions.

पाटिमोख्ख–प्रतिमोक्ष, पाकट–प्रकट, पावचन–प्रवचन (*pāṭimokkha–pratimokṣa, pākaṭa–prakaṭa, pāvacana–pravacana*). Other cases of lengthening are :—

आजिर–अजिर, पायास–पायस, गावुत–गव्यूति (*ājira–ajira, pāyāsa–pāyasa, gāvuta–gavyūti*).

Some of these cases may be regarded as compensatory for the loss of a consonant; but others have no such justification.

(*f*) Nasalized vowels are often lengthened, when the nasal is dropped.

सीह–सिंह, वीसति–विंशति, दाठा–दंष्ट्रा, (सं) डास–दंश, तीस–त्रिंशत् (*sīha–siṁha, vīsati–viṁśati, dāṭhā–daṁṣṭrā*, (*saṁ*) *ḍāsa–daṁśa, tīsa–triṁśat*).

The opposite process, viz., the development of a nasal where there was none originally is also observed. It is to be remarked, however, that in such cases the nasal generally repairs the loss of some consonant.

संवरी–शर्वरी (*saṁvarī–śarvarī*), मंकुला–मत्कुण (*maṁkulā–matkuṇa*), cf. Pr. अंसु (*aṁsu*), दंसण (*daṁsaṇa*) for अश्रु (*aśru*), दर्शन (*darśana*). सिंगाल–शृगाल (*siṁgāla–śṛgāla*), दण्ड–दृढ, नांग–नाग (*daṇḍha–dṛḍha, nāṁga–nāga*), Sindhī नंगर for Sk. नगर (*naṁgar* for *nagara*) are cases where the nasal does not compensate any loss. Cf. मांगितलां (*māgitalā*) of Koṅkaṇī boys for standard Marāṭhī मागितलें (*māgitalē*).

6. Vowels are often dropped without any compensation धीता–दुहिता (*dhītā–duhitā*), लंकार–अलंकार (*laṁkāra–alaṁkāra*), पि–अपि (*pi–api*), व–एव (*va–eva*), परज्झति–अपराध्यति (*parajjhati–aparādhyati*).

a. Consonants:—The Pāli possesses all the Sanskrit consonants, except श (*śa*) and ष (*ṣa*)

1. (*a*) कण्ह–कृष्ण (*kaṇha–kṛṣṇa*), कासिगामक–काशिग्रामक (*kāsigāmaka–kāśigrāmaka*); खज्ज–खाद्य (*khajja–khādya*), खर–खर (*khara–khara*), गग्ग–गर्ग (*gagga–garga*), गन्धब्ब–गन्धर्व (*gandhabba–gandharva*), घटिकार (*ghaṭikāra*).

(*b*) चक्कवत्ती–चक्रवर्ती (*cakkavatī–cakravartī*), चेतिय–चैत्य (*cetiya–caitya*), जम्बुदीप–जम्बुद्वीप (*jambudīpa–jambudvīpa*), जेट्ठ–ज्येष्ठ (*jeṭṭha–jyeṣṭha*).

(*c*) तक्क–तर्क (*takka–tarka*), तिस्स–तिष्य (*tissa–tiṣya*), थेर–स्थविर (*thera–sthavira*), दक्खिणापथ–दक्षिणापथ (*dakhināpatha–dakṣiṇāpatha*) दुव्वच–दुर्वचस् (*duvaca–durvacas*); नन्द, नगर (*nanda–nagara*).

(*d*) पञ्ञा–प्रज्ञा (*paññā–prajñā*), पदुम–पद्म (*paduma–padma*), फग्गुनी–फल्गुनी (*phaggunī–phalgunī*), बहुक (*bahuka*), बोधिसत्त–बोधिसत्व (*bodhisatta–bodhisatva*), भिक्खु–भिक्षु (*bhikkhu–bhikṣu*), मज्झिम–मध्यम (*majjhima–madhyama*).

(*e*) यस–यश (*yasa–yaśa*), रत्त–रक्त (*ratta–rakta*) लक्खण–लक्षण (*lakkhaṇa–lakṣaṇa*), विरूपक्ख–विरूपाक्ष (*virū–pakkha–virūpākṣa*).

(*f*) सक्क–शाक्य (*sakka–śākya*), सुदस्सन–सुदर्शन (*sudassana–sudarśana*), सट्ठि–षष्टि (*saṭṭi–ṣaṣṭi*), हत्थिपाल–हस्तिपाल (*hatthipāla–hastipāla*).

(*g*) As was to be expected, cerebrals are found much more profusly than in Sanskrit. Vide section 34,

5. मकुट (*makuṭa*), जटिल (*jaṭila*), तिकूट-त्रिकूट (*tikūṭa–trikuṭa*), कटाह (*kaṭāha*), घट, दुट्ठ (*ghaṭa, duṭṭha*), पठम (*paṭhama*), चण्ड (*caṇḍa*), दण्ड (*daṇḍha*), पुण्ण (*puṇṇa*), जिण्ण (*jiṇṇa*).

2. But Sanskrit consonants are sometimes changed in Pāli.

(*a*) चुण्ड-कुण्ड, भिसक्क-भिषज्, उस्सित-उच्छ्रित, चेतक-चेटक, पज्जुण्ण-पर्जन्य, सक्कट-संस्कृत, दोहलिनी-दोहदिनी बिलास-विलास, सब्ब-सर्व, लट्ठी-यष्टि, एलण्ड-एरण्ड, नलाट-ललाट (*cuṇḍa–kuṇḍa, bhisakka–bhiṣaj, ussita–ucchṛita, cetaka–ceṭaka, pajjuṇṇa–parjanya, sakkaṭa–saṁskṛta, dohalinī–dohadinī, bilāsa–vilāsa, sabba–sarva, laṭṭhī–yaṣṭi, elaṇḍa–eraṇḍa, nalāṭa–lalāṭa.*

(*b*) Hard consonants are sometimes softened पसद-पृषत, उद-उत, रुद-रुत, व्यावट-व्यापृत (*pasada–pṛṣata, uda–uta, ruda–ruta, vyāvaṭa–vyāpṛta*).

(*c*) A य (*ya*) sometimes appears for द, (*da*) thus anticipating the यश्रुति (*yaśruti*) of the Ardha-Māgadhī.

गोयान-गोदान (*goyāna–godāna*), खायित-खादित (*khāyita–khādita*), सायति-स्वादते (*sāyati–svādate*). Cf. आलसिय (*alasiya*) in the passage quoted above.

(*d*) Change is seen in the conjunct consonants, which show either simplification, when the preceding vowel is lengthened—vide 5 *a* above—or assimilation. मुत्त-मुक्त, दुद्ध-दुग्ध, उप्पतति-उत्पतति, बुब्बुल-बुद्बुद, सद्द-शब्द, लद्ध-लब्ध, उस्सुक्क-औत्सुक्य, वुच्चति-उच्यते, एकच्च-एकत्य, तप्पति-तप्यते (*mutta–mukta, duddha–dugdha, uppatati–utpatati, bubbula–budbuda, sadda–śabda, laddha–labdha, ussukka–autsukya, vuccati–uccyate, ekacca–ekatya, tappati–tapyate*) show that a

य् (*y*) is generally assimilated to the preceding element of the conjunct. Often, however, the conjunct is dissolved by an intervening vowel, thus giving anaptyxis. *e. g.*

आचरिय-आचार्य, सूरिय-सूर्य (*ācariya-ācārya, sūriya-sūrya*).

38. INFLECTION:—The Pāli like Sanskrit is yet rich both in declension and conjugation. However, the peculiar tendency of the Pāli shared also by the Prākrits to either drop end-consonants or add an अ (*a*) to them, has resulted in almost driving out consonantal declension from the Pāli. However, some stray forms have still persisted in asserting their original nature; राजानं (*rājānaṁ*) in the passage quoted above, तचो (*taco*) nom. pl. of तच्-त्वच् (*tac-tvac*), वाचा (*vācā*) instr. sing. of वाच् (*vāc*), पमुदि (*pumudi*) loc. sing. of पमुद् (*pamud*). But the way consonantal stems became vowel stems is shown by forms like गच्छन्तो (*gacchanto*), which formed the base by adding अ (*a*), Sk. गच्छन्त् (*gacchant*). Still, there are certain consonantal stems like अत्ता (*attā*) Sk. आत्मा (*ātmā*), राजा (*rājā*) Sk. राजा (*rājā*). We therefore divide Pāli declension into two classes, the vowel class and the consonantal class. There are only two numbers, and seven, often only six, cases, the genitive and dative as a rule, and the instrumental and ablative often, having merged together. This prepares the ground for the total loss of the dative in the Prākrits, where the genitive has absorbed its functions. Thus we can understand expressions like दामिलाय लेण (*dāmilāya leṇa*) in cave inscriptions, which means in Sk. दामिलस्य लयनम् (*dāmilasya layanam*).

A. Of vowel stems there are those in अ, आ, इ, ई, उ, ऊ, ओ (*a, ā, i, ī, u, ū, o*). The terminations are the same as in Sanskrit, with proper phonetic changes and those referred to above. We shall give a few forms.

धम्म (*dhamma*)—the law or religion.

	Sing.		PL.	
N.	धम्मो	(*dhammo*)	धम्मा, धम्मासे	(*dhammā, dhammāse*)
V.	धम्म-मा	(*dhamma-mā*)	धम्मा	(*dhammā*)
A.	धम्मम्	(*dhammaṁ*)	धम्मे	(*dhamme*)
I.	धम्मेन	(*dhammena*)	धम्मेभि, धम्मेहि	(*dhammebhi, dhammehi*)
D. & G.	धम्मस्स (rarely धम्माय)	(*dhammassa*, *dhammāya*)	धम्मानम्	(*dhammānam*)
Ab.	धम्मा, धम्मस्मा, धम्मम्हा	(*dhammā, dhammasmā, dhammamha*)	धम्मेभि, धम्मेहि	(*dhammebhi, dhammehi*)
L.	धम्मे, धम्मस्मिम्, धम्मम्हि	(*dhamme, dhammasmim, dhammamhi*)	धम्मेसु	(*dhammesu*)

कञ्ञा (*kaññā*)—a girl.

N.	कञ्ञा	(*kaññā*)	कञ्ञा, कञ्ञायो	(*kaññā, kaññāyo*)
V.	कञ्ञे	(*kaññe*)	,, ,,	,, ,,
A.	कञ्ञम्	(*kaññam*)	,, ,,	,, ,,
I.	कञ्ञाय	(*kaññāya*)	कञ्ञाभि, कञ्ञाहि	(*kaññābhi, kaññāhi*)
D. & G.	कञ्ञाय	(*kaññāya*)	कञ्ञानम्	(*kaññānam*)
Ab.	कञ्ञाय	(*kaññāya*)	कञ्ञाभि-हि	(*kaññābhi-hi*)
L.	कञ्ञाय, कञ्ञायम्	(*kaññāya*, *kaññāyam*)	कञ्ञासु	(*kyññāsu*)

The abl. and loc. of अ (*a*) stems show three forms each, one in keeping with Sanskrit but the other two formed on the analogy of the forms of the pronouns. The nom. plu. धम्मासे (*dhammāse*), intsr. abl. pl. धम्मेभि, धम्मेहि (*dhammebhi, dhammehi*) remind one of the Vedic forms देवासः (*devāsaḥ*) and देवेभिः (*devebhiḥ*), to which, therefore, the former must be traced.

Instr. abl. gen. and loc. sing. forms of the आ (*ā*) stems are the same throughout. In this the Pāli appears to be influenced by classical Sanskrit, which has the same form at least for the abl. and gen. Pāli has drawn in dat. in the lot, as that case was on its way to decline. And all these appeared to influence the loc. which, side by side with the regular form कञ्ञायम् (*kaññāyam*) also shows कञ्ञाय (*kaññāya*). This latter form, however, is very rarely found. Still further abridged, the dative shows the आ (*ā*) ending[1] in certain stray forms *e. g.* एसना=एसनाय (*esanā = esanāya*). A few forms of this dative in आय (*āya*), are used in the sense of the infinitive, भोजनत्थ्या (*bhojanatthā*), or त्थाय (*thhāya*), in order to get food.

(*b*) In the declension of इ (*i*) and उ (*u*), bases, the अ (*a*), declension has influenced the masculine and neuter forms of the dat. gen. whereby we get an अग्गिस्स (*aggissa*), side by side with अग्गिनो (*aggino*). This is due to the influence of analogy, which has worked more havoc with the Pāli and Prākrit forms than with Sanskrit ones. The loc. is formed on the analogy of pronouns *e. g.* अग्गिस्मिं (*aggismiṁ*), अग्गिम्हि (*aggimhi*). The form अग्गिनो (*aggino*), of the dat. gen. is due to the analogy of the neuter form of इ, उ (*i, u*), bases which show regular forms like अक्खिनो (*akkhino*), Sk. अक्ष्णः (*akṣṇaḥ*). These bases also show स्मात् (*smāt*), forms for the abl. on the analogy of pronouns again *e. g.* अग्गिस्मा, अग्गिम्हा (*aggismā, aggimhā*).

अग्गिना (*agginā*), for instr. and abl. of masc. and रत्तिया (*rattiyā*), for the same cases of fem. bases in इ (*i*), show how the ablative is merging into the instrumental on account of the similarity of function of the two cases. The same is to be observed with regard to the उ (*u*), declension.

(*c*) Although forms like राजानम् (*rājānam*), रञ्ञा (*raññā*), रञ्ञो (*rañño*), and राजिनो (*rājino*), रञ्ञे (*raññe*), and राजिनि

1. E. MÜLLER, *Simplified Grammar of the Pāli Language* p. 67.

(*rājini*), for the acc., inst., gen. and loc. respectively, prove the existence of consonantal declension in the Pāli, still other forms like युवानस्स (*yuvānassa*), and युवस्स (*yuvassa*), for gen., युवाने (*yuvāne*), युवानस्मिं (*yuvānasmiṁ*), युवानम्हि (*yuvānamhi*), and युवे (*yuve*), for loc. show how this great class was on its decline, giving two bases—one by dropping the final consonant and another by adding an अ (*a*), to it.

The declension of सखि (*sakhi*), is an interesting example of contamination. The acc. shows सखानं (*sakhānaṁ*), and सखं (*sakhaṁ*), the former on the analogy of अन् (*an*) stems that have retained their final and the latter on the analogy of such as have lost it.

(*d*) Pronouns generally agree in declension with their Sanskrit counterparts, with due phonetic changes.

e. g. अहम् (*aham*), मम् (*mam*) and ममम् (*mamam*), मया मम-ममम् (*mayā, mama-mamam*) and मय्हम्-अम्हम् मयि (*mayham-amham, mayi*) are forms respectively of the nom., acc., instr-abl., dat-gen., and loc. of the pronoun of the first person.

त्वम्-तुवम् (*tvam-tuvam*), .त्वम्-तुवम् (*tvam-tuvam*) and तम्-तवम् (*tam-tavam*), त्वया-तया (*teayā-tayā*), तव-तवम् (*tava-tavam*) and तुय्हम्-तुह्मम् (*tuyham-tumham*), त्वयि-तयि (*tvayi-tayi*), are corresponding forms of the pronoun of the second person.

For the third person, forms of the demonstrative are used and they are almost like Sk. forms.

e. g. सो, तम्, तेन (*so, tam, tena*), तस्मा तह्मा, तस्स, तस्मिं-तह्मि (*tasmā-tahmā, tassa, tasmiṁ-tahmi*).

(*e*) Pāli adjectives have declension and comparison as in Sanskrit. The suffixes for the two degrees as in Sk. तर तम (*tara, tama*) and इयो-यो, इष्ठ (*iyo-yo, iṣṭha*). There are irregularities in comparison as in Sanskrit.

e. g. अप्प=अल्प (*appa=alpa*) कनीयो (*kanīyo*)
अन्तिक (*antika*) नेदियो (*nediyo*)
पसत्थ=प्रशस्य (*pasattha=praśasya*) सेय्यो=श्रेयः (*seyyo=śreyaḥ*)
कनिट्ठ (*kaniṭṭha*)
नेदिट्ठ (*nediṭṭha*)
सेट्ठ=श्रेष्ठ (*seṭṭha=śreṣṭha*)

(*f*) Pāli numerals follow Sk. numerals closely, as एक (*eka*), ति, छ, द्वादस (*ti, cha, dvādasa*) or बारस, वीसम् (*bārasa, vīsam*) or वीसति (*vīsati*), तिंसम् (*timsam*) or तिंसति (*timsati*), पञ्ञासम् (*paññāsam*) or पञ्ञास (*paññāsa*) etc. show. In declension they agree with Sanskrit; *e. g.* तयो, तीभि, तिण्णम् (*tayo, tibhi, tiṇṇam*), तीसु=त्रयः, त्रिभिः, त्रयाणाम्, त्रिषु (*tīsu=trayaḥ, tribhiḥ, trayāṇam triṣu*). The ordinals are पठम दुतिय ततिय (*paṭhama, dutiya, tatiya*) (by dissimilation), चतुत्थ छट्ठ (*catuttha, chaṭṭha*) etc.

b. Conjugation:—The Pāli shows as many classes of roots as the Sanskrit. Thus there are roots which take the conjugational sign, before which the root vowel either takes or does not take गुण (*guṇa*); there are others which take no thematic vowel. Some show reduplication, while others infix a णा, णु or णो (*ṇā, ṇa ṇo*); there are also the उ (*u*) and अय् (*ay*) classes.

Although according to Pāli grammarians like Kaccāyana, there are two voices the परस्सपद (*parassapada*), and अत्तनोपद (*attanopada*), the Pāli literature favours the former. Forms like अम्हसे (*amhase*), from अस् (*as*), ददाम्ह (*dadāmha*), अभिकीररे (*abhikīrare*) show that although it is looked upon more as परस्सपद (*parassapada*), the अत्तनोपद (*attanopada*), is there. The Prākrits go a step further and drop the Ātmanepada altogether.

The Pāli has four moods, including the subjunctive and four tenses, the present, aorist-imperfect, future and condi-

tional. As we have remarked above, Pāli has no perfect.[1] As in inflection, the Pāli has given up the dual.

It must be noted, however, that many Pāli roots have changed their class; *e. g.* यायति (*yāyati*), from या (*yā*), to go अयाय (*ayāya*), (which is to be looked upon as a form of the past tense of या (*yā*), and not as perfect of इ (*i*), or या (*yā*), as many scholars believe), ठाति (*ṭhāti*) from स्था (*sthā*), beside तिट्ठति, दाति (*tiṭṭhati, dāti*), from दा (*dā*), जिणाति (*jiṇāti*), from जि (*ji*) beside जयति-जेति (*jayati-jeti*); हनति (*hanati*), from हन् (*han*), भायति (*bhāyati*) from भी (*bhī*), etc. They also change the पद (*pada*); *e. g.* सेमि (*semi*) from शी (*śī*), although the pres. part. सेमान (*semāna*), still retains it.

a. The personal terminations are the same as in Sanskrit. Some paradigms will give an idea of Pāli conjugation :—

हू (*hū*) = Sk. भू (*bhū*).

होमि (*homi*),	होम* (*homa*)
होसि (*hosi*)	होथ (*hotha*)
होति (*hoti*)	होन्ति (*honti*)

ब्रू (*brūr*) Parsm

ब्रूमि (*brūmi*)	ब्रूम (*brūma*)
ब्रूसि (*brūsi*)	ब्रूथ (*brūtha*)
*ब्रूति, ब्रवति (*brūti, bravati*)	ब्रवन्ति (*bravanti*)

अस् (*as*)

अस्मि, अम्हि (*asmi, amhi*)	अस्म, अम्ह (*asma, amha*)
असि (*asi*)	अत्थ (*attha*)
अत्थि (*atthi*)	सन्ति* (*santi*)

Atta.

ब्रवे (*brave*)	ब्रूमहे (*brūmahe*)
ब्रूसे (*brūse*)	ब्रूव्हे (*brūvhe*)
ब्रूते (*brūte*)	ब्रवन्ते (*bravante*)

1. E. MÜLLER also is misled by Kaccāyana, when he says that the Pāli possesses the perfect. *op. cit.* p. 96.

N. B.—The pāli appears to make no distinction between strong and weak terminations. So that, if there is a strengthening of the root vowel before the sing. terminations; it is kept up also before the pl. terminations, as in होमि (*homi*) and होम (*homa*), अम्हि (*amhi*) and अम्ह (*amha*), ब्रवति (*bravati*) and ब्रवन्ति (*bravanti*). The form सन्ति (*santi*) is due to the influence of Sanskrit, which has often disturbed the phonology and inflection of Pāli and the Prākrits. This influence was at some period less, at another greater. It is perhaps an exaggeration to say that such interference came after the 2nd or 3rd century A. C.[1] and was due to an imaginary secondary Sanskrit.

कृ

करोमि	(*karomi*)	करोम	(*karoma*)
करोसि	(*karosi*)	करोथ	(*karotha*)
करोति	(*karoti*)	करोन्ति	(*karonti*)

मन् (*man*) gives मुनाति (*munāti*)
प्राप् (*prāp*) „ पापुणति (*pāpuṇati*)
पलाय् (*palāy*) „ पलेति (*paleti*) Mar. पळतो (*paḷato*)

b. The imperative shows the same forms as in Sanskrit, excepting the मि (*mi*) and न्ति (*nti*) of the first sing. and third pl., which are due to the analogy of similar forms of the present. The हि (*hi*) going back upon old Sk. धि (*dhi*) is seen where it is unusual in Sanskrit; *e. g.* गण्हाहि (*gaṇhāhi*), गच्छहि (*gachhahi*). The–स्सु (*-ssu*) from–स्व (*sva*) of the 2nd pers. *attano.* is seen even with roots of the *parassapada*; *e. g.* भवस्सु (*bhavassu*), Sk. भव (*bhava*). cf. करोथ (*karotha*) in the passage quoted above.

c. The subjunctive in Pāli was discovered by PISCHEL. As in Sanskrit it consists in the lengthening of the अ (*a*) be-

1. O. FRANKE, *Pāli und Sanskrit* p. 56-57. The statement of facts re.the Kharoṣṭhī inscriptions at p. 54a go against his own theory. Against FRANKE, see WINDISCH, *Sprachlicher Charakter des Pāli*, 21-22.

fore terminations; *e. g.* हनासि (*hanāsi*), दहासि (*dahāsi*), दहाति (*dahāti*).

d. The optative terminations are एय्यामि (*eyyāmi*), एय्यासि (*eyyāsi*), एय्य (*eyya*) for singular and एय्याम (*eyyāma*) or एम (*ema*), एय्याथ (*eyyātha*), or एथ (*etha*), एय्युम् (*eyyum*) for the plural. This may be regarded as the strengthening of the Sk. terminations ईय (*īya*) etc. or as due to the सन्धि (*sandhi*) of the conjugational sign अ (*a*) and ईय (*īya*). Besides these, there is also current an ए (*e*) for the three singulars; *e. g.* रोदे, आनये (*rode, ānaye*) etc. This ए (*e*) is to be traced to Sk. ऐ (*ai*) of first pers. sing, imperative. Examples:—भवेय्यामि (*bhaveyyāmi*), हुवेय्यामि, अहरेय्यासि, जानेमु (*huveyyāmi, ahareyyāsi, jānemu*) (for म) (*ma*), पस्सेमु (*passemu*). Besides these there are the *attanopada* forms[1] एय्यम्–एय्यामहे (*eyyam–eyyāmahe*) etc.

e. The imperfect and aorist are not strictly distinguished in ordinary cases, the *s* formations only being distinctly aoristic. The augment, which originally indicated the past character of the two tenses[2], is not obligatory in Pāli and has totally disappeared in the Prākrits.

Examples—अवचम् (*avacam*), अद्दसम् (*addasam*) and अहुम् (*ahum*) first sing. from भू, अहुवा (*bhū, ahuvā*), अद्दस (*addasa*) third sing.; अहुम्ह, अहुवत्थ (*ahuhma, ahuvattha*) first and second pl. अस्सुम् (*assum*) third pl. from श्रु, अदक्खुम् (*śru, adakkhum*), from दृश् (*dṛś*). The उम् (*um*) of the third pers. pl. is from Sk. उस् (*us*).

The terminations of the *s* aorist are supposed to be due to the root अस् (*as*). Thus इषम्–इष्म, ईः–इष्ट, ईत् (*iṣam–iṣma, īḥ–iṣṭa, īt*) and इषुः (*iṣuḥ*) give in Pāli इम्–इम्ह (*im–imha*), इ–इत्थ, इ (*i–ittha, i*) and इंसु (*iṁsu*) or इसुम् (*isum*).

Examples:—अदास्सिम्, अग्गहि (*adassim, aggahi*); the imperfect–aorist of अस् (*as*), आसिम्, आसि (*āsim, āsi*), आसि

1. E. MULLER, *Op. Cit.* p. 108 ff.
2. See *Supra*

(*āsi*) sing. and आसिह्म (*āsihma*), आसित्थ (*āsittha*), आसिंसु (*asiṁsu*) pl.

f. The future is easily formed after Sanskrit, with proper phonetic changes.

Examples:—विचेस्सति (*vicessati*), दक्खति (*dakkhati*) = Sk. द्रक्ष्यति (*drakṣyati*), दस्सामि (*dassāmi*), जिनिस्सति (*jinissati*). दक्खिस्सति (*dakkhissati*) is evidently a double future.

g. Besides the ordinary bases, there are in Pāli causatives, desideratives, intensives and denominatives. There are as in Sk. causatives in अय् (*ay*) and प् (*p*), the latter much more frequent in the Pāli than in Sanskrit: नायेति (*nāyeti*) from नी (*nī*), सुणापेति (*suṇāpeti*) from श्रु (*śru*), जिनापेति (*jināpeti*) from जि (*ji*). It is to be noted that before the प् (*p*), the root shows its full conjugational base.

पिपासति (*pipāsati*), बुभुक्खति (*bubhukkhati*), प्रहंसति (*prahaṁsati*) are desideratives.

लालपत्ति (*lālapatti*), चंकमति (*caṁkamati*), जंगमति (*jaṁgamati*) are intensives from लप् (*lap*), क्रम् (*kram*) and गम् (*gam*).

denominatives पब्बतायति (*pabbatāyati*), गणीयति (*gaṇīyati*,) थेनेति (*theneti*) are denominatives of different kinds.

h. There are present, past, future and potential participles as in Sanskrit.

Examples:—लभन्तो, कुब्बाण, (*labhanto, kubbāṇa*), सयमाण (*sayamāṇa*) pres. part. from लभ्, कृ (*labh, kṛ*) and शी (*śī*). पत्त, इट्ठ. बन्ध, पिलन्ध (*patta, ittha, bandha, pilandha*) past. pass. part. from प्राप् इष् बध् (*prāp, iṣ, badh*) and पिनद्ध (*pinah*) (the last by dissimilation).

दिन्न, जीन, शीन (*dinna, jīna, sīna*) are past. part. in न (*na*).

जितिन्तब्ब (*jinitabba*), कतब्ब (*katabba*), हीर (*hīra*) are pot. part. from जि, कृ (*ji, kṛ*) and हृ (*hṛ*).

i. There are infinitives in तुम्, तवे, तये (*tum, tave, taye*) and तुये (*tuye*), thus showing the closer affinity of the Pali with the Vedic Sanskrit

e. g जितुम् (*jinitum*), पहातवे, गणेतुये, (*pahātave, ganetuye*), etc. from जि, हा (*ji, hā*) and गण् (*gaṇ*).

There is also a variety of gerunds as in Vedic Sanskrit.

त्वा : गन्त्वा (*tvā : gantvā*), दिट्ठा (*diṣṭvā*); त्वान : चेत्वान, जिनित्वान (*tvāna : cetvāna, jinitvāna*); तून : कातून : सोतूनम् (*tuna: kātūna, sotūnam*) य, आहच्च (*ya : āhacca*) from हृ (*hṛ*), पतिच्च (*paticca*) from इ (*i* with प्रति *prati*).

त्वान (*tvāna*) is traceable to Vedic Sanskrit, but not perhaps तून (*tūna*) and तूनम् (*tūnam*), unless one regards them as weakened forms of the first.

From this brief examination of the Pāli from the phonological and morphological points of view, it is clear that in all respects the Pāli stands closer to old Sanskrit than do the Prākrits. Although like the Prākrits some vowels are dropped, the consonants are not subjected to an emasculation as in the Prākrits. Pāli inflection has not lost as much of the wealth of forms as the Prākrits have. The Pāli stage, as it is called,[1] is therefore anterior to the Prākrit stage.

39. ORIGIN OF THE PĀLI LANGUAGE:—What is the basis of this literary Pāli? This is a question that has puzzled scholars, and is perhaps not yet set at rest. This question and the question of the home of the Pāli are so interrelated that we must not only treat them together, but rather take the latter first.

KUHN, following the tradition that Mahinda, Asoka's son born in Ujjayinī, took the canon with him to Ceylon, when Ujjayinī was the capital of the Mālāva Country, thinks that the dialect of Ujjain was the basis of the literary Pāli. OLDENBERG, on the other hand, thinks that Pāli was the vernacular of Kaliṅga, and that the Buddhist migration to Ceylon must have gone from that country. This conclusion was arrived at after comparison of the Pāli with the inscription at Khaṇḍagiri.

1. WACKERNAGEL, *op cit* p. XVIII.

E. MÜLLER agrees with this conclusion,[1] although on different grounds.

FRANKE, in his *Pāli and Sanskrit*, has dealt with the question at length. He has compared the language of the various Prākrit inscriptions, which he calls inscriptional Pāli and on noting that literary Pāli is different from the language of the Kharoṣṭhī inscriptions, inscriptions of the east and south and south-west, has arrived at the conclusion that the home of the literary Pāli must be within the region surrounded by the Prākrit inscriptions, *i. e.* the region round about Ujjayinī.[2]

WINDISCH rightly points out that the Pāli did not agree with any of the Prākrits on the inscriptions, because it had long ceased to be a dialect of any province, but had become a Κοινη (*Koinē*) or literary language, for the same reasons as Luther's dialect became the High German. When a language becomes more and more a common language, it gives up, by and by, its original dialectic peculiarities. But even a literary language must have a dialect of some region as its basis, and Pāli, according to WINDISCH whom GRIERSON follows, had for its basis the Māgadhī. No doubt the Pāli does not show the peculiarities of the latter, viz. the ए (*e*) of the nom. sing. masc. of अ (*a*) bases, and the invariable ल (*l*) for र् (*r*). But these were given up by the Pāli, when it became almost a *lingua franca*, in preference to ओ (*o*) and र् (*r*) which were more commonly found in other dialects. But some traces of these are yet found in the Pāli. *Bhikkhave* the vocative, modelled upon the nominative, is still preserved, as it was a word of address used by Buddha so frequently in his discourses. Tradition also

1. *Op. Cit.* p. IV.

2. O. FRANKE, *Op. Cit.* 131–132. A summary and good criticism of his arguments will be found in E. WINDISCH'S '*Uber den sprachlichen Charakter des Pāli*', esp. p. 23. Cf. also GRIERSON: Home of Literary Pāli, p. 117 of the *Bhandarkar Commemoration Volume.*

says that the Pāli represents the जिनवचनं (*jinavacanaṁ*) or बुद्धवचनं (*buddhavacanaṁ*) and that the Buddha spoke in मागधी (*māgadhī*). The characteristic ळ् (*l*) of the Māgadhī is found in Pāli words like लुद्द (*ludda*), अगळु (*agalu*), पलिवेठेति (*paliveṭheti*), इसिगिलि (*isigili*), for Sk. रुद्र (*rudra*), अगरु (*agaru*), परिवेष्टयति (*pariveṣṭhayati*), ऋषिगिरि (*ṛṣigiri*). Cf. also मालुत (*māluta*) for मारुत (*māruta*). WINDISCH rightly points out that the ळ् (*l*) and ए (*e*) were not peculiar to Māgadhī only; they were current in Kapilavastu also, as the Piprāvā inscription shows. That the Pāli had adopted more current form of other dialects, and had thus acquired a mixed character is shown by a variety of forms for one case like धम्मे (*dhamme*), धम्मस्सि (*dhammassiṁ*), धम्मम्हि (*dhamamhi*).

40. THE INSCRIPTIONAL PRĀKRITS.—These are known to us from the rock—and pillar edicts of Emperor Aśoka (*circa.* 273 B. C. to 231 B. C.). The importance of these inscriptions from the historical point of view is indeed very great; but that from the linguistic point of view is not smaller. There are fourteen principal edicts promulgated on rocks and seven on pillars. The former are written in two scripts, the Kharoṣṭhī and Brāhmī. The inscriptions found at Shāhbāzgarhi, formerly called Kapurdigiri, near Attock and at Mansehra, near Abbottabad in Northern Punjab, are written in the Kharoṣṭhī script. Those at Girnar in Kāthiawad, Śūrpāraka or Sopara in Thana district, Khālsī in Dehrā Dūn district, Dhauli in Kuttak and Jaugaḍa in Ganjam districts are found in the Brāhmī script. The pillar-edicts were found at Siwālik, Mīrat, Allāhabād, Radhia, Mathia, Rāmpūrva etc. Besides these, there are versions of the edicts found on topes and caves, *e. g.* Sanchi, Bhabra, Barābar (Nāgārjuni caves). There are also inscriptions of Aśoka's successors. But later on the Prākrits as language of the inscriptions began to disappear, and Sanskrit usurped their place. FRANKE has shown that Sanskrit, as language of inscriptions, begins to appear from

the first century B. C. and becomes with the Guptas the only inscriptional language.

The first European to decipher the inscriptions was PRINSEP. CUNNINGHAM followed him and published them in the "*Corpus Inscriptionum Indicarum*", 1877. His edition is now antiquated. SENART then took up the work and began editing them from 1881 onwards in his "*Les inscriptions de Piyadasi*". This has been translated by GRIERSON in the *Indian Antiquary*, Vols 9, 10, 12, 17 to 21.

The standard edition of these edicts is that of BÜHLER in *Epigraphia Indica* I and II. BÜHLER'S "*Contributions to the explanations of the Asoka-incriptions*", 1909 is also the best work of its kind.

Leaving the minor rock-and the pillar-edicts, we shall consider the principal edicts only. They are found at Shāhbāzgarhri, Mānsehrā and Khālsī in the north-west and north, Girnār in the west and Dhauli and Jaugaḍa in the east. They are supposed to represent what is called by PISCHEL the Leṇā dialect. This is a misnomer; because the inscriptions give evidence of difference in dialects, as the following comparison will show. We take for illustrations the first edict as it is found in the west at Girnār and in the east at Jaugaḍa.

a. Girnār version of the first edict[1]:—

इयं धंमलिपी देवानं प्रियेन प्रियदसिना राजा लेखापिता. इध न किंचि जीवं आरभित्पा प्रजूहितव्यम् न च समाजो कतव्यो. बहुकं हि दोसं समाजम्हि पसति देवानं प्रियो प्रियदसि राजा. अस्ति पितु एकचा समाजा साधुमता देवानं प्रियस प्रियदसिनो राजो. पुरा महानसम्हि देवानं प्रियस पियदसिनो राजो अनुदिवसं बहूनि प्राणसतसहस्रानि आरभिसु सूपाथाय. से अज यदा अयं धंमलिपी लिखिता ती एव प्राणा आरभरे सूपाथाय द्वो मोरा एको मगो. सोपि मगो न धुवो. एतेपि त्री प्राणा पछा न आरभिसरे.

1. FRANKE, *op. cit.* p. 50.
2. BUHLER, E. I. II 448.

(*o*) *iyaṁ dhaṁmalipī devānaṁ priyena priyadasinā rāñā lekhāpitā. idha na kiṁci jīvaṁ ārabhitpā prajūhitavyam na ca samājo katavyo. bahukaṁ hi dosaṁ samajamhi pasati devāṇaṁ priyo priyadasi rājā. asti pitu ekacā samājā sādhumatā devānaṁ priyasa priyadasino rāño. purā mahānasamhi devānaṁ priyasa piyadasino rāño anudivasaṁ bahūnī praṇasatasahasrāni ārabhisu supāthāya. se aja yadā ayaṁ dhaṁmalipī likhitā tī eva prāṇā ārabhare sūpāthāya dvo morā eko mago. sopi mago na dhuvo. etepi trī prāṇā pachā na ārabhisare.*

b. Jaugaḍa version of the same[2]:—

इयं धम्मलिपि खपिगलसि पवतसि देवानं पियेन लाजिना लिखापिता. हिद नो किंछि जीवं आलभितु पजोहितविये. नापि समाज कटविये. बहुकं हि दोसं समाजस दखति देवानं पिये पियदसि लाजा. अथि पि चु एकतिया समाजा साधुमता देवानं पियस पियदसिने लाजिने. पुलुवं महानससि देवानं पियस पियदसिने लाजिने अनुदिवसं बहूनि पानसतसहसानि आलभियंति सुपठाये. से अज अदा इयं धंमलिपी लिखिता तिनि येव पानानि आलभियिसु दुवे मजुला एके मिगे. सेपि चु मिगे नो धुवं. एतानि पि चु तिनि पानानि पछा नो आलभियिसंति.

iyaṁ dhammalipi khapigalasi pavatasi devānaṁ piyena lājinā likhāpitā. hida no kichi jīvaṁ ālabhitu pajohitaviye. nāpi samāja kaṭaviye. bahukaṁ hi dosaṁ samājasa dakhati devānaṁ piye piydasi lājā. athi pi cu ekatiyā samājā sādhumatā devānaṁ piyasa piyadasine lājine. puluvaṁ mahānasasi devānaṁ piyasa piyadasine lājine. anudivasaṁ bahūni pānasatasahasāni ālabhiyisu supaṭhāye. se aja adā iyaṁ dhaṁmalipī likhitā tini yeva pānāni ālabhiyanti duve majulā eke mige. sepi cu mige no dhuvaṁ. etāni pi cu tini pānāni pachā no ālabhiyisanti.

First of all there is a phonological difference between the two versions, viz, that while Girnār shows a र् (*r*) like Pāli, Jaugaḍa shows a ल् (*l*) like Māgadhī *e. g.* राजा (*rājā*) and लाजा (*lājā*), आरभितु (*ārabhitu*) आलभितु (*ālabhitu*) whereas

1. BÜHLER, *Aśoka Inschriften* p. 3.

Girnār shows conjuncts, Jaugaḍa simplifies them by स्वरभक्ति (*svarabhakti*) or anaptyxis *e. g.* कतय्वो (*katayvo*) bad writting for कतव्यो (*katavyo*) and कटवियें (*kaṭaviye*); the loss of the lingual र् (*r*) is not compensated in Girnār but is made up by lingualising the following त (*ta*) in Jaugaḍa, सूपाथाय, सूपठाये (*sūpāthāya, sūpaṭhāye*). The Sk. ऋ (*ṛ*) is represented in Girnār by अ but in Jaugaḍa by an इ (*i*) *e. g.*) मगो (*mago*) and मिगो (*migo*); इध (*idha*) and हिद (*hida*) show the same kind of variation as is seen in the Marāṭhī इथें (*ithē*) and हित्ते (*hitte*); Girnār has ण् (*ṇ*), ञ (*ñ*) and न् (*n*), Jaugaḍa न (*na*) only.

In morphology too there is a marked difference in the two versions. Girnār has पियो (*piyo*), like Pāli, Jaugaḍa has पिये (*piye*), like Māgadhī; मगो–मिगे (*mago–mige*), सो–से (*so–se*). Girnār has loc. sing. in म्हि (*mhi*), Jaugaḍa in सि (*si*), समाजम्हि (*samājamhi*), महानसम्हि (*mahānasamhi*), but महानससि (*mahānasasi*), पवतसि (*pavatasi*). The former has the रे (*re*), of the third plu. seen in Vedic दुहे (*duhe*,) शेरे (*śere*), while the latter has the regular अंति (*aṁti*), of the Pāli and Prākrits; *e. g.* आरभिसंरे (*ārabhisaṁre*), but आलभियिसंति (*ālabhiyisaṁti*).

This is sufficient to show that the western and the eastern versions show variations sufficient to warrant their being called dialectal. We shall now take a specimen of the northern version and compare it with the two above.

(*c*) Mānsehra version[1] of the same edict :—

अयि ध्रमदिपि देवन प्रियेन प्रियद्रशिन रजिन लिखपित. हिद नो किंचि जिवे अरभितु प्रयुहोतवियें. नो पिच समज कटवियं. बहुक हि दोष समजस देवनं प्रियें प्रियदर्शि रज देखति. अस्ति पिचु एकतिय समज साधुमत देवनं प्रियस प्रियदर्शिने रजिने. पुर महनससि देवन प्रियस प्रियदर्शिस रजिने अनुदिवसं बहुनि प्रणशत-सहस्रनि आरभिसु सुपथये से इदनि यद अयि ध्रमदिपि लिखित तद तिनि येव प्रणनि अरभियंति दुवे मजर एके म्रिगे. सेपिचु म्रिगे नो ध्रुवं. एतनि पि चु तिनि प्रणनि पच नो आरभिसंति. (*ayi dhramadipi devana priyena priyadra-*

1. BÜHLER, *op. cit.* p. 205.

śina rajina likhapita. Hida no kici jive arabhitu prayuhotaviye. No pica samaja kaṭaviya. Bahuka hi doṣa samajasa devanaṁ priye priyadarśi raja dekhati. asti picu ekatiya samaja sādhumata devanaṁ priyasa priyadarśine rajine. pura mahanasasi devana priyasa priyadarśisa rajine anudivasaṁ bahūni praṇaśatasahasrani ārabhisu supathaye se idani yada ayi dhramadipi likhita tada tini yeva praṇani ārabhiyanti duve majara eke mrige. Sepicu mrige no dhruvaṁ. etani pi cu tini praṇani paca no ārabhisaṁti.

It will be seen at a glance, that in phonology this agrees partly with Girnār and partly with Jaugaḍa. The agreement with Girnār consists in the preservation of the र्, रजिन, पुरः (*r*, *rajina*, *puraḥ*) but कटविये, मजुर (*kaṭaviye*, *majura*) agree with Jaugaḍa. In morphology, however, this agrees entirely with Jaugaḍa: *e. g.* ए (*e*) of the nom. sing. masc., सि (*si*) of the loc. sing. A remarkable feature, however, not common with the two above, is the perservation of the palatal sibilant श् (*ś*), also of ष् (*ṣ*). This was perhaps due to the greater influence of Sanskrit that is seen throughout this version *e. g.* अस्ति (*asti*), प्राणा, ध्रम (दिपि) (*prāṇā*, *dhrama*) (*dipi*), प्रियदर्शिन (*priyadarśina*). Uncommon influence of Sanskrit is also seen on the Shāhbāzgarhi version.

a. *The inscriptions show at least more than two dialects*:— It will be clear from the above that the inscriptions show dialectal variations. There was one dialect current in the province round and about Girnār; another near Jaugaḍa and a third in the district round Mānsehra: or that there was a dialect of the north, another of the west, a third of the east, besides the one principal central dialect of Magadha in which the edicts must have been issued originally. This dialect must have exercised a greater influence over neighbouring dialects, *e. g.* that of Jaugaḍa and Dhauli, than on others more distant, *e. g.* that of Girnār. This accounts for the र् (*r*) and ओ (*o*) of Girnār, and the ल् (*l*) and ए (*e*) of Dhauli–Jaugaḍa.

Taking the Shāhbhāzgarhi and Mānsehra versions we find that though there is a remarkable phonological resemblance between the two, yet morphologically Shāhbāzgarhi version stands nearer to Girnār and Mānsehra to Jaugaḍa at least in respect of the ओ (*o*) and ए (*e*) endings. It is perhaps owing to this last consideration chiefly, that SENART speaks of the two great groups of inscriptional dialects viz. that comprising the Girnār and Shāhbāzgarhi inscriptions and that comprising Khālsī, Mānsehra, Dhauli, Jaugaḍa and all the minor ones. 'From this point of view (*i. e.* dialectic differences) the monuments of Piyadasi divide themselves into two main groups. In the one there is no cerebral *ṇ*, palatal *ñ*, an initial *y* is elided, *l* is substituted for *r*, the nominative masculine and usually the nominative neuter end in *e*, and the locative in *asi*; the other distinguishes the cerebral *ṇ* and the palatal *ñ*, retains the initial *y* and the *r* unchanged, makes the nominative singular of masculine *a* bases end in *o*, and the locative in *amhi* or in इ.[1]

But apart from the agreement shown by the language of Girnār and Shābhāzgarhi inscriptions in the points noted above, there are also differences which warrant their being classed as distinct dialects. The differences are :—

(*a*) Girnār has only one sibilant स् (*s*), whereas Shāhbāzgarhi and for the matter that of Mānsehra also has all the three, श्, ष् (*ś, ṣ*) and स् (*s*); *e. g.* दोष, प्रियदर्शि, प्रिअस (*doṣa, pryadarśi, priasa*);

(*b*) the groups त्प[2] (*tpa*) and स्त (*sta*) at Girnār only; *e. g.* आरभित्पा (*āralhitpā*), तिस्टन्तो (*tiṣṭanto*);

(*c*) the representation of र्थ (*rtha*) by थ (*tha*) at Girnār and ठ (*ṭha*) at Shāhbāzgarhi; *e. g.* सूपथाय (*sūpathāya*) and सूपठये (*sūpaṭhaye*);

1. SENART. *I A* 21. 171-2.

2. BÜHLER *Aśoka Inschriften* p. 3 thinks that this is a careless writing for प्त (*pta*).

(*d*) the nominative singular neuter in म् (*m*) at Girnār and in ए (*e*) Shāhbāzgarhi *e. g.* जीवं (*jīvaṁ*) and जीवे (*jīve*);

(*e*) the third pers. pl. in –रे (*re*) at Girnār and –सु (*su*) at Shāhbāzgarhi.

(*f*) the loc. sing. in –म्हि (*mhi*) (also –ए) (*e*) at Girnār, and in –सि (*si*) (also –ए) (*e*) but never –म्हि (*mhi*) at Shāhbāzgarhi;

(*g*) the gen. sing. of इन् (*in*) bases in –इनो (*ino*) at Girnār and –इस (*is*), at Shāhbāzgarhi, *e. g.* प्रियदसिनो (*priyadasino*), and पियदसिस (*piyaḍasisa*).

SENART admits[1] that 'to a certain degree at least,' these two inscriptions 'do reflect different shades of dialect'. But he is not ready to admit the same with regard to the other group, which shows more Māgadhisms than the one we have just dealt with. That even at Girnar and at Shāhbāzgarhi we have to reckon with certain Māgadhisms is clear from nom. sing. in ए (*e*), *e. g.* Girnār, edict XII line 1 where प्रिये (*priye*) is quite distinct; and Shāhbāzgarhi, edict X line 1 where too it is equally distinct.

It is worth noting that the similarity between the Dhauli–Jaugaḍa and the Khālsī versions is very remarkable for their great distance. It can, however, be explained in this way, that both these provinces viz. the Kuttak–Ganjam and the upper-Jumna province, were so closely connected with the central province of the empire, that the peculiar dialects of these gave up their individual peculiarities in preference to the peculiarities of the court language.

FRANKE has taken great pains to prove the 'Pāligrundlage[2] (*Pāli basis*) of the dialects of this and the immediately following period. It is enough to say that the dialects represented on the Aśokan and post-Aśokan inscriptions are

1. *Op. cit.* p. 172.
2. *Pāli and Sanskrit* p. 66.

the natural development of the dialects spoken in Buddha's times, one of which is preserved to us in the literary Pāli. Nobody can think of tracing them immediately to *Vedic* Sanskrit.

We shall note some phonological and morphological peculiarities of the inscriptional dialects before proceeding to the consideration of the literary Prākrits.

41. PHONOLOGY:—The inscriptional dialects agree with the Pāli sound-system entirely. Of vowels ऋ, ऌ, ऐ (*ṛ, ḷ, ae*) and औ (*au*) are lost; consonants are still not on their way to decline as in the literary Prākrits. We shall only note changes[1] in vowels and consonants.

(*a*) Change in quantity:—lengthening apparently due to no cause in चिकीछ (*cikīcha*) Girnār II-Sk. चिकित्सा (*cikitsā*); सर्वता (*sarvatā*) Girnār II-सर्वत्र (*sarvatra*), मितासंस्तुत (*mitāsaṁstuta*) Gir III-मित्रसंस्तुत (*mitrasaṁstuta*); पियसा (*piyasā*), पियदसिसा (*piyadasisā*) Khālsī II-प्रियस्य, प्रियदर्शि (स्य) (*priyasya, priyadarśi (sya)*; अदमनसा (*adamanasā*) Khālsī VI; shortening due to a conjunct or anusvāra in धंमनुसथिया (*dhaṁmanusathiyā*) Khālsī III-धर्मानुशास्त्या (*dharmānuśastyā*). This shortening often does not take place; but the conjunct is simplified and the vowel lengthened in वासाभिसितेन (*vāsābhisitena*) Gir. III-वर्षाभिषिक्तेन (*varṣābhiṣiktena*), रजिन (*rajina*), लिखपित (*likhapita*) Mānsehra I, दनेन (*danena*) Shāh. XII-दानेन. देवनं (*dānena, devanaṁ*) Shāh. XI-देवानाम् (*devānām*).

(*b*) Change in quality:—चु (*cu*) Gir. I-च (*ca*); मगो (*mago*) Gir I-मृगः (*mṛgaḥ*); लिखापिता (*likhāpitā*) Jaugaḍa I-लेखापिता (*lekhāpitā*), कता (*katā*) Gir.

1. SENART, *Op. cit* Part II. *Indian Antiquary*, 21. 2 ff.

I–कृते (*kṛte*); यारिसे (*yārise*) Gir. IV–यादृशे (*yādṛśe*); पिरिंद (*pirinda*) Gir. XIII–पुलिंद (*pulinda*).

(*c*) Anaptyxis in गलहा (*galahā*) Khālsī XII–गर्हा (*garhā*); इथी (*ithī*) Gir. XII–स्त्री (*strī*), प्रापुणोति (*prāpuṇoti*) Gir. XIII–प्राप्नोति (*prāpnoti*); वियंजनते (*viyaṁjanate*) Khālsī, Jaugaḍa III–व्यंजनतः (*vyaṁjanataḥ*).

(*d*) Syncope:—ओलोधनसि (*olodhanasi*) Khālsī VI–अवरोधे (*avarodhe*); थेरे (*there*) Gir. IV through थइरे–स्थविरे (*sthaire–sthavīre*). Dropping of a consonant between vowels has not yet become so frequent as later.

(*e*) Changes in consonants:—पवजितानि (*pavajitāni*) Khālsī XII–प्रव्रजितानि (*pravrajitāni*), संपटिपति (*saṁpaṭipati*) Gir. IV–संप्रतिपत्तिः (*saṁpratipattiḥ*) showing cerebral in place of dental when a र् (*r*) is dropped before it; यारिस, तारिस (*yārisa, tārisa*) Gir. IV where त् (*t*) is changed to र् (*r*); लहुका (*lahukā*) Gir. Khālsī XII–लघुका (*laghukā*), होंति अहुंसु (*homti, ahuṁsu*) Khālsī IV etc.–भवंति (*bhavaṁti*), अभवन् (*abhavan*) where भ् (*bhū*) is simplified into ह् (*h*); conjuncts are simplified in various ways, *e. g.* अभिसित (*abhisita*) Gir. III–अभिषिक्त (*abhiṣikta*), अतिकंतं (*atikaṁtaṁ*) Khālsī IV–अतिक्रान्तं (*atikrāntaṁ*); व्रच्छा (*vrachhā*) Gir. III, लुखानि (*lukhāni*) Khālsī–वृक्षाः (*vṛkṣāḥ*); अगिकंधानि (*agikaṁdhāni*) Khālsī IV, अगिखंधानि (*agikhaṁdhāni*) Gir. IV–अग्निस्कन्धानि (*agniskandhāni*); आप्तपासंड (*āptapāsaṇḍa*) Gir. XII, अत्तपाषंड (*attapāṣaṇḍa*) Khālsī XII–आत्मपाषंड (*ātmapāṣaṇḍa*); घरस्तानि (*gharastāni*) Gir. XII or गहथानि (*gahathāni*) Khālsī XII–गृहेस्थनि (*gṛhesthāni*) or गृहस्थानि (*gṛhasthāni*); वढी (*vaḍhī*) Gir. Khālsī XII–वृद्धि (*vṛddhi*); (अज *aja*) Gir. Jaugaḍa I; उयानेसु (*uyānesu*) Gir. VI, उयानसि (*uyānasi*)

Jaugaḍa VI–उद्यानेषु (*udyāneṣu*); ब्राह्मणसामणानं (*brāhmaṇasāmaṇānaṁ*) Gir. IV, बंभनसमनानं (*baṁbhanasamanānaṁ*) Khālsī–ब्राह्मणश्रमणानाम् (*brāhmaṇaśramaṇānām*). From all these cases it will be seen that the conjunct shows assimilation first and then simplification, even without lengthening of the preceding vowel.

42. INFLECTION:—(*a*) As in the Pāli, the consonantal declension tends to merge into the vowel–especially the अ (*a*) class. Still लाजिना, लाजिने (*lājinā, lājine*), राजा, राजो (*rājā, rājo*, भ्राता, मातरि, पितरि, यसो (*bhrātā, mātari, pitari, yaso*) and other forms show that a few consonantal bases are preserved.

The nominative singular of masculine अ (*a*) bases ends in ओ (*o*) in Girnār, Shāhbāzgarhi inscriptions and in ए (*e*) in the rest. But even the former show the distinctly मागधी (*māgadhī*) ending ए (*e*) *e. g.* राजुके (*rājuke*) Gir. III beside रजुको (*rajuko*) Shāh. III धर्मसंस्तवे (*dharmasaṁstave*) beside धर्मसंविभागो (*dharmasaṁvibhāgo*) Shāh. XI. देवानं पिये (*devānaṁ piye*) beside देवानं पियो (*devānaṁ piyo*) according to SENART'S reading.

The neuters show the usual म् (*m*) *e. g.* जीवं (*jīvaṁ*) Gir I; but it often takes the ए (*e*) on the analogy of masculine अ (*a*) bases *e. g.* जिवे (*jive*), Shāh. I अजे बहुविधे धंमचरणे (*aje, bahuvidhe, dhaṁmacaraṇe*), Gir. IV. The distinction in gender is thus obscured and we get forms like हिरणपटिविधानो (*hiraṇapaṭi-vidhāno*), Gir. VIII, if SENART'S[1] reading is correct. BÜHLER[2] reads पटिविधाने (*paṭividhāne*), which would be a good parallel to जिवे (*jive*), of Shāh I.

The dative is in अय (*aya*), or अये (*aye*). एताय अथाय (*etāya athāya*), Gir. III, एतये अठये (*etaye aṭhaye*), Shāh. V. Even feminines have य (*ya*); इमाय धम्मानुसत्थिय (*imāya dhammānusatthiya*), Gir. III,

1. Inscriptions de Piyadasi, *Ind. Ant.* 21, 5,
2. *Aśoka Inschriften* p. 52.

The ablative ends in आ (*ā*), as the final cononant is ever avoided सवलोक-हितप्ता (*savaloka-hitaptā*), Gir. VI. Fem. तम्बपण्णी (*tambapaṇṇī*), Gir. II.

The gen. ends in स (*sa*), through स्स (*ssa*), from स्य (*sya*), even in the case of इ (*i*), bases. प्रियदशिस (*priyadaśisā*), Khālsī I, beside प्रियदसिनो (*priyadasino*), Gir. I and प्रियदसिने (*priyadasine*), Jaugaḍa I. The ओ (*o*), gen. of राजो (*rāño*), is due to Sk. अस् (*as*), in राज्ञः (*rājñaḥ*).

The loc. ends in म्हि (*mhi*), ए (*e*), in Girnār-Shāhbāzgarhi inscriptions and in सि (*si*), (through स्सिं (*ssiṁ*), from स्मिन्) (*smin*), ए (*e*), in the other group. विजितम्हि (*vijitamhi*), Gir. II, विजिते (*vijite*), Gir. III. विजितसि (*vijitasi*), Jaugaḍa II.

The plurals are almost regular, with due phonetic changes. महामाता (*mahāmātā*), Gir. V-महामात्राः (*mahāmātrāḥ*), ओसधानि (*osadhāni*), Jaugaḍa II-औषधानि (*auṣadhāni*), ञातिनं (*ñātinam*), Gir. IV-ज्ञातीनाम् (*jñātīnām*), ञातीसु (*ñātīsu*), Gir. IV-ज्ञातिषु (*jñātiṣu*). A nom. plural in ए (*e*), is seen in पादेसिके (*pādesike*), Gir., Jaugaḍa, Khālsī III-प्रादेशिकाः (*prādeśikāḥ*); बहुहि वससतेहि (*bahuhi vasasatehi*), Gir. IV is looked upon as plural of the ablative by SENART.[1]

Of pronouns the following forms, occuring in most of the edicts, should be noted.

ममया, मम (*mamayā, mama*); अञे (*aṅe*), nom. sing. अंञानि, अन्नानि (*aṁñāni, annāni*), pl. अयम् (*ayam*), both masc. and fem., इमं, इमाय (*imaṁ, imāya*), इमिना, इमस (*iminā, imasa*), इमम्हि (*imamhi*), एस एतम् (*esa, etam*), एताय, एताये (*etāya, etāye*), etc. किंचि (*kiṁci*); सो (*so*), ताय, तम्हि (*tāya, tamhi*); यं, यानि (*yaṁ, yāni*), etc.

(*b*) In conjugation too, the dialects of the inscriptions agree materially with the Pāli, as the following forms will show.

1. *Op. cit.* p. 6.

1. भवति, भोति (*bhavati, bhoti*) and होति (*hoti*) Mānsehra XII, where the first is to be regarded as a Sanskritism मनति, गलहति (*manati, galahati*), पुनाति (*punāti*), पसति, दखति (*pasati, dakhati*), कलेति=प्राप्नोति (*kaleti=prāpnoti*), पापुणोति (*pāpuṇoti*), पश्यति (*paśyati*) करोति (*karoti*) आरभरे (*ārabhare*)[1] is passive, explained by BÜHLER as comming through आरम्भरे (*ārambhare*) from आरभ्यन्ते (*ārabhyante*); Jaugaḍa has the pass. आलभियन्ति (*ālabhiyanti*).

2. नियातु (*niyātu*), or नियान्तु (*niyāntu*), युजन्तु (*yujantu*), are imperatives and गच्छेयम् (*gachheyam*), तिस्ठेय, वासेसु (*tisṭheya, vāsesu*), सिया (*siyā*) or शिया (*śiyā*) (स्यात्) (*syāt*), पटिपजेय प्रतिपद्येत (*pāṭipajeya*) (*pratipadyeta*), असु (*asu*) (= स्युः) (*syuḥ*) are potentials.

3. अहुंसु, आरभिसु (*ahuṁsu, ārabhisu*) from आरम्भिसु (*ārabbhisu*) according to SENART,[2] आलभियिसु (*ālabhiyisu*) Jaugaḍa are aorists. आह (*āha*) is the only perfect seen in these inscriptions.

4. लिखापयिसं, आरभिसरे (*likhāpayisaṁ, ārabhisare*) (pass), अनुवतिसरे (= अनुवर्तिष्यन्ते), (*anuvatisare* (= *anuvartiṣyante*), अनपयिसंति (*anapayisaṁti*) (causal), अनुसासिसंति (*anusāsisaṁti*), वधियिसति (*vadhiyisati*), equivalent to वर्धयिष्यति (*vardhayiṣyati*), निखामयिसामि (*nikhāmayisāmi*) are futures.

5. Causal is formed by adding प् (*p*). लेखापिता (*lekhāpitā*), हारापिताः (*hārāpitāḥ*), रोपापिताः (*ropāpitāḥ*) is a double causal; अञापयिसंति (*añāpayisaṁti*). Still there are some traces left of the य् (*y*) causal; *e. g.* आलोचेत्वा (*ālocetvā*)-आलोचयित्वा (*ālocayitvā*).

6. There are absolutives and infinitives and participles of all kinds.

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1. *op cit* p. 3.
2. *op cit* p. 8.

e. g. आरभिसा (*ārabhiptā* = त्वा = *tvā*) Gir. I, आलभितु (*ālabhitu*) Dhauli I are absolutives.

आराधेतुम् (*ārādhetum*); खमितवे (*khamitave*) Gir. III appears to be an infinitive.

कट, कत, वधित (*kaṭa, kata, vadhita*), मत, विजित, खानापित (*mata, vijita, khānāpita*) are past participles.

करंत (*karaṁtaṁ*) Shāh. XII, करं (*karaṁ*) Gir. XII according to SENART (कुर्वन्) (*kurvan*), करोन्तो (*karonto*) Gir. XII, तिस्टन्तो (*tiṣṭanto*) Gir. IV are pres. part. कटविये (*kaṭaviye*), कतव्वो (*katayvo*), पजूहितविअं (*pajūhitaviaṁ*) are potential participles.

We have pointed out the Sanskritisms from time to time. FRANKE admits that they are more numerous in the Shāhbāzgarhi inscription, perhaps because it was very near Kâshmīr, the home of the so-called secondary Sanskrit. But words and forms like प्राण, सहस्र, बहुकं, अनुदिवसं, नास्ति (*prāṇa, sahasra, bahukaṁ, anudivasaṁ, nāsti*) आह (*āha*), मातरि (*mātari*), पितरि, संस्तुत, भूतं, अविहिंसा, अनारम्भः, भवति (*pitari, saṁstuta, bhūtaṁ, avihiṁsā, anārambhaḥ, bhavati*) that occur within the first four edicts alone of Girnār, show that Sanskrit tradition was current and unbroken then, as it was in later centuries and exercised its influence over the growing vernaculars. The same is observable in the literary Marāṭhī or Hindī or Bengālī of today.

PART V

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THE LITERARY PRĀKRITS AND THE VERNACULARS

I The Prākrits

43. THE NAME AND GENESIS:—Under the name Prākrit, the grammarians understand various languages. The oldest of them, Vararuci mentions four: the Māhārāṣṭrī, Paiśācī, Māgadhī and Śaurasenī. Hemacandra, a Jain writer belonging to the end of the 12th century, mentions three more, the Arṣa which is nothing else than the Ardhamāgadhī of others, the Culikāpaiśācika and the Apabhraṁśa. Later grammarians follow Hemacandra generally.

Vararuci does not recognise Apabhraṁśa as a separate Prākrit, perhaps rightly so. It was what some rhetoricians called देशभाषितं (*deśabhāṣitaṁ*) or spoken language of the country or people. Dandin[1] tells us that in Kāvya, Apabhraṁśa meant language of cowherds and such other people, and in text books (of grammar or rhetoric) whatever was different from Sanskrit was called Apabhraṁśa. Under Prākrit he understands माहाराष्ट्री (*Māhārāṣṭrī*), which is Prākrit pâr excellence,[2] शौरसेनी (*Śaurasenī*), गौडी (*gauḍī*) and लाटी (*lāṭī*). गौडी (*gauḍī*) was evidently another name for मागधी (*māgadhī*); what he understood by लाटी (*lāṭī*) is not quite clear.

All Prākrit grammarians understand that the origin of these languages was Sanskrit. We, however, know that this

1. *Kāvyādarśa* 1, 37.
2. *op. cit.* 1, 34.

could not have been the case. These literary languages are derived from dialects—say Apabhraṁśas—which with the dialects of the inscriptions, the Pālī and the *Vedic* Sanskrit form one continuous chain. Their development from the inscriptional dialects will be clear from the few points which we note as follows:—

Pr. लिहावइश्शम् (*lihāvaiśśam*)–Girnār लिखापयिसम् (*likhāpayisam*)

„ सयणिज्जयम्मि (*sayaṇijjayammi*), पुत्तंसि (*puttaṁsi*)–Gir. समाजह्मि (*samājahmi*), महानसह्मि (*mahānasahmi*)

„ अग्गिणो (*aggiṇo*) and अग्गिस्स (*aggissa*)–Inscr. पियदसिनो (*piyadasino*) and पियदसिस (*piyrdasisa*)

„ पुत्तेहिं (*puttehiṁ*)–Inscr. बहुहि (*bahuhi*).

Then the general agreement in phonology, which we shall notice below, points in the same direction. Only, we cannot show more points of harmony in morphology, as the Prākrits show a decidedly analytic stage.

That the Prākrits, through the inscriptional dialects reach back to the *Vedic* language[1] directly is shown by facts and forms like the following:—

(*a*) The looseness of Saṁdhi rules and स्वरभक्ति (*svarabhakti*), which is very common in the Prākrits. Pr. भारिया (*bhāriyā*), कसट (*kasaṭa*) सनान (*sanāna*) for भार्या (*bhāryā*), कष्ट (*kaṣṭa*), स्नान (*snāna*) Cf. col. Mar. सनान (*sanāna*).

(*b*) In phonology, the Prākrits like the Vedic, change single *ḍ, ḍh* between two consonants to *ḷ, ḷh*, Ved. ईळे (*īḷe*); Pr. गुळ (*guḷa*), Mar. गूळ (*gūḷa*); Pr. सोळस (*soḷasa*), Mar. सोळा (*soḷā*); Ved. गूळ्ह (*gūḷha*), समूळ्ह (*samūḷha*), Pr. गोळ्हा (*goḷhā*); the Vedic com-

1. PISCHEL, *op. cit* p. 4.

bination स्क (*ska*) is seen in Pr. ख (*kha*) *e. g.* स्कम्भ (*skambha*), Pr. खम्भ (*khambha*), This cannot go back to classical Sanskrit स्तम्भ (*stambha*). Ved. सध्रीम् (*sadhrīma*), Pr. सद्धिम् (*saddhim*); Ved. कथा (*kathā*), Pr. किध (*kidha*), किह (*kiha*).

(*c*) In inflection certain forms go back only to *Vedic* Sanskrit, *e. g.* nom. pl. आहो (*āho*), *Vedic* आसः (*āsaḥ*), पुत्ताहो (*puttāho*) ; Ved. देवासः (*devāsaḥ*), gen. sing. fem. आए (*āe*) to *Vedic* आयै (*āyai*) Cf. तज्जायायै जायात्वम् (*tajjāyāyai jāyātvam*), Pr. मालाए (*mālāe*); instr. pl. एहिं (*ehiṁ*) to Vedic एभिः (*ebhiḥ*); cf. देवेभिः (*devebhiḥ*), P. बहुहि (*bahuhi*), Pr. पुत्तेहि (*puttehi*); imp. 2nd. sing. होहि (*hohi*) to Vedic बोधि (*bodhi*), Pr. कुणदि (*kuṇadi*) to Vedic. कृणोति (*kṛṇoti*); infinitives in आय (*āe*) and त्तए (*ttae*), Vedic तवै (*tavai*); cf. Pr. वत्थए (*vatthae*) to Vedic वस्तवै (*vastavai*).

(*d*) In vocabulary, the Prākrits possess certain words that are traceable only to Vedic Sanskrit *e. g.* पासो (*pāso*) from Ved. पश् (*paś*); ता (*tā*), जा (*jā*), एत्थ (*ettha*) from Ved. तात् (*tāt*), यात्, इत्था (*yāt, itthā*); घिंसु (*ghiṁsu*), Ved. घ्रंस (*ghraṁsa*).

Except in the माहाराष्ट्री (*Māhārāṣṭrī*), there is not much literature in the other Prākrits. But we find them used to a certain extent in the Sanskrit dramas. The शौरसेनी (*Śaurasenī*) is the language of prose in the dramas, although of course it is spoken by inferior characters and women only. It is the language of the prose in कर्पूरमञ्जरी (*Karpūramañjarī*) throughout. The अर्धमागधी (*ardhamāgadhī*), a border language between the मागधी (*Māgadhī*) and शौरसेनी (*Śaurasenī*) and therefore showing features of both, possesses a lot of literature. It is the language of the sacred canon of the Jainas and all their अङ्ग (*aṅga*) and उपाङ्ग (*upāṅga*) works like *Āyāraṅga,*

Uvāsagadasāo and *Kappasutta* are written in it. The Māgadhī fares worst of all. It is found used by some minor characters in the *Mṛcchakaṭika* and other dramas and the शाकारी (*śākārī*, चाण्डाली *cāṇḍālī*), बाह्लीकी (*bāhlīkī*) are, according to grammarians, its sub-dialects.[1] The पैशाची (*paiśācī*) shows no extant literature. The *Bṛhatkathā* of Guṇāḍhya was, according to very old tradition, written in the पैशाची (*Paiśācī*). Hemacandra[2] mentions a dialect चूलिकापैशाचिकम् (*cūlikāpaiśācikam*). When Dandīn calls it a भूतभाषा (*bhūtabhāsā*),[3] he only misunderstands the name. The माहाराष्ट्री (*Māhārāṣṭrī*) is the most important of all these Prākrits. It must have become a literary language sometime before the first known dramatist wrote his work, as in all dramas Prākrit poetry is written in माहाराष्ट्री (*Māhārāṣṭrī*) only. The heroines, for instance, ordinarily speak the शौरसेनी (*Śaurasenī*), but when they speak in verse, they exclusively use the माहाराष्ट्री (*Māhārāṣṭrī*). The entire verse-portion of the *Karpūramañjarī* is written in it. The language and the form acted mutually upon each other: the verses were written in it, because it lent itself easily to poetic composition; and because it was almost exclusively used in such composition, its supple character was accentuated. It became, therefore, the language of poetic composition *par excellence*. *Sattasaī* and *Vajjālagga*, the two anthologies of lyrics, *Rāvaṇavaho* and *Gauḍavaho*, the two epics, and the drama *Karpūramañjarī* (partly) are the well-known works in that language.

अपभ्रंश (*apabhraṁśa*), as we have seen, means a colloquial dialect underlying any of the literary Prākrits. Hence it is, that in enumerating languages, grammarians give it a separate place beside संस्कृत (*saṁskṛta*) and प्राकृत (*prākṛta*).

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1. PISCHEL *Grammatik* p. 24.
2. IV 325 to 328, in PISCHEL *op. cit.* p. 27.
3. *Kāvyādarśa* I. 38.

Daṇḍin[1] classifying literature speaks of संस्कृतं (*saṁskṛtaṁ*), प्राकृतं (*prākṛtaṁ*), अपभ्रंशः (*apabhraṁśaḥ*), and मिश्रम् (*miśram*). Originally it must have been the language of the people, and works must have been written in it later, to enable Daṇḍin to make this classification. The varieties of the अपभ्रंश (*apabhraṁśa*), like नागर (*Nāgara*), व्राचड (*Vrācaḍa*), उपनागर (*upanāgara*) and वारेन्द्री (*vārendrī*), are, according to grammarians[2], spoken in provinces like Sind in the West and Bengāl in the East. Pingala's *Chandassūtra* and the Prākrit of the fourth act of the *Vikramorvaśīya* are the only specimens of literature in अपभ्रंश (*apabhraṁśa*) besides the verses quoted by Hemacandra in his grammar.

PISCHEL[3] concludes from these facts that 'we have therefore to distinguish between a Śaurasenī Apabhraṁśa, the old colloquial language of the Śūrasenās of which the modern Gujarātī and Mārvārī are continuations, and a Śaurasenī Prākrit, a literary language'. In the same way there was a Māhārāṣṭrī Apabhraṁśa from which the modern Marāṭhī has descended, and a Māgadhī Apabhraṁśa from which the Bihārī and the Bengālī have descended. We have to remark again that a literary language is not an 'artificial language *made* by any body, but one or the other dialect raised to the dignity of a common language of literature and which therefore has an accepted, fixed form incapable of further development.

It is to be noted that the names of these languages are derived either from the countries where they were current, or from the people by whom they were spoken. Thus the माहाराष्ट्री (*Māhārāṣṭrī*) was the language of महाराष्ट्र (*Mahārāṣṭra*), the country lying south of the विन्ध्य (*Vindhya*), and north of the river नर्मदा (*Narmadā*). शौरसेनी (*Śaurasenī*) belonged to the शूरसेनाः (*Śūrasenāḥ*) the country round about मथुरा (*Mathurā*),

1. *op. cit.* I 32.
2. PISCHEL *op. cit.* 27.
3. *op. cit.* p. 3.

comprising, say, part of eastern Punjab also ; अर्धमागधी (*ardha-māgadhī*) lay to the east of शौरसेनी (*Śaurasenī*), in the district of Allahabad etc.; मागधी (*māgadhī*) had मगध (*magadhā*) or Bihar for its country, whose capital was first राजगृह *Rajagṛha* then पाटलिपुत्र (*Pāṭaliputra*). Thus they were spread over the whole of upper India, north of the Sātpurā range and west of the Hoogli river.

But where is the home of the पैशाची (*Paiśācī*) to be sought? The grammarians and rhetoricians had no idea of it. They misunderstood the name and thought that it was a language of spirits and goblins. The *Mahābhārata*[1] mentions the पिशाच (*Piśāca*) people amongst the tribes that distinctly point to the north-west as their home. They are the काश्मीराः, उरसाः (*Kāśmīrāḥ, Urasāḥ*), according to GRIERSON[2] the modern Punjab district of Hazara), पैशाचाः, काम्बोजाः (*paiśācāḥ kāmbojāḥ*), a tribe of the Hindū Kush), the दरदाः (*daradāḥ*) (or Dards) and the शकाः (*Śakāḥ*),–(Scythians). From such references and linguistic evidence, GRIERSON has conclusively proved that the wild tribes of the extreme North-west,[3] immediately to the south of the Hindū Kush, are the modern representatives of the ancient पिशाचाः (*piśācāḥ*). Some grammarians state, that there were the केकय (*kekaya*), शूरसेन (*Śurasena*), and पञ्चाल (*pañcāla*) varieties[4] of the पैशाची (*Paiśācī*). This would mean that the पिशाच (*piśāca*) and their language had occupied a goodly portion of the modern Punjab and that on their border these mixed idioms arose. The connection between the पैशाची (*Paiśācī*), and शौरसेनी (*Śaursenī*), which the above presupposes, is significant And we have to understand the remark of Vararuci[5] that the

1. VII. 499.
2. *Indian Antiquary* 43.144.
3. *Z D M G* 66. 69, 74.
4. *Mārkaṇḍeya* quoted in PISCHEL, *Grammatik* p. 27.
5. *Prākṛtaprakāśa* X, 2.

शौरसेनी (*Śaurasenī*), is the प्रकृति (*prakṛti*), or basis of the पैशाची (*Paiśācī*), in the light of it. All that is meant thereby is, that special features apart, both the languages underwent similar changes; and that perhaps the पैशाची (*Paiśācī*), borrowed much from शौरसेनी (*Śaurasenī*) vocabulary as also from Sanskrit.[1] The above disposes of the theory of HOERNLE,[2] that Paiśācī was a Prākrit spoken by Dravidian aborigines.

It will be clear from the above and from the phonology of the Prākrits, which we shall presently take up, that the traditional view represented by the grammarians regarding the Prākrits is the right one. There is no doubt about the fact that Vararuci, the oldest of the Prākrit grammarians, and probably[3] the same as the Vārtikakāra Kātyāyana, CANDA who is to be placed much anterior to Hemacandra, and even to Dhanapāla, the Prākrit lexicographer of the 10th century A. C. and Hemacandra were right in their four or fivefold classification of the Prākrit. HOERNLE'S only two varieties of Prākrit, the Śaurasenī Prākrit and the Māgadhī Prākrit,[4] accepted by GRIERSON[5] also, has no foundation in facts. The principal Prākrits have distinctive features of their own (see below), which preclude the possibility of a re-classification as suggested.

44. PHONOLOGY OF THE PRĀKRITS:—The vowels have generally remained the same, except ऋ (*ṛ*) and ऌ (*ḷ*) which are changed and ऐ (*ai*) and औ (*au*) which, as in Pāli, became ए (*e*), ओ (*o*). There are as many consonants as in Sanskrit, but they have suffered various changes.

a. *Vowels*:—The Māhārāṣṭrī and others possess all the vowels, except the four mentioned above. We shall only note

1. GRIERSON, Paiśācī, Pisācas and Modern Pisāca, *ZDMG* LXVI p. 65,
2. *Gaudian Grammar* p. xix.
3. PISCHEL, *Grammatik* p. 34.
4. *Gaudian Languages* p. xviii.
5. *Seven Grammars of the Bihārī language* p. 5.

the changes which are often observable either in the quality or in the quantity of the vowels.

(*a*) Changes[1] in quality:—अ (*a*) becomes इ (*i*). M. ईसि (*īsi*), वेडिसो (*veḍiso*), इंगालो (*imgālo*) Mar. इंगळ (*imgaḷa*), णिडालं (*niḍālaṁ*) Mar. निढळ (*niḍhaḷa*) and मज्झिम (*majjhima*) from ईषत् (*īṣat*), वेतस (*vetasa*), अंगारः (*aṁgāraḥ*):, ललाट (*lalāṭa*), मध्यम (*madhyama*).

अ (*a*) becomes उ (*u*). M. खुडिअ (*khuḍia*) Mar. खुड (*khuḍa*) (-लेलें) (*lelē*), गउओ (*gauo*), पुढम (*puḍhama*) from खण्डित, गवय, प्रथम (*khaṇḍita, gavaya, prathama*). In the last two examples the change compensates the loss of a semi-vowel.

अ (*a*) becomes ए (*e*). M. सेज्जा (*sejjā*) Mar. शेज (*śeja*), सुन्देरं (*sunderaṁ*), अच्छेरं (*achheraṁ*) Coll. Mar. आच्छिर (*āchhira*), उक्केरो (*ukkero*) Mar. उकिरडा (*ukiraḍā*), गेन्दुअ (*gendua*) Mar. गेन्द (*genda*) from शय्या (*śayyā*), सुन्दर (*śundara*), आश्चर्य (*āścarya*), उत्कर (*utkara*) and कन्दुक (*kanduka*).

अ (*a*) becomes ओ (*o*). M. बोर (*bora*) Mar. बोर (*bora*), मोर (*mora*) Mar. मोर (*mora*), लोण (*loṇa*) Mar. लोणा (*loṇā*) (जमीनीला लोणा लागला) (*jamīnīlā loṇā lāgalā*), ओप्पइ (*oppai*) Mar. ओपणें (*opaṇē*) from बदर (*badara*), मयूर (*mayūra*) लवण (*lavaṇa*) and अर्पयति (*arpayati*). It is to be noted that the ओ (*o*) in the first case compensates the loss of द् (*d*) and in the last two cases of a semi-vowel.

आ (*ā*) becomes इ (*i*) in some cases. M. तइ (*tai*) Mar. तैं (*taĩ*), जइ (*jaĩ*) Mar. जैं (*jaĩ*) from तदा (*tadā*) and यदा (*yadā*).

आ (*ā*) becomes ए (*e*). M. गेज्झ, मेत्त (*gejjha, metta*) from ग्राह्य, मात्र (*grāhya, mātra*).

आ (*ā*) becomes ओ (*o*). M. ओली (*olī*) Mar. ओळ (*oḷa*) from आलिः (*āliḥ*).

1. Vararuci, *Prākṛtaprakāśa* I and *Hemacandra* I, 46, 47, 53, 54, 57.

इ (*i*) becomes अ (*a*). M. पहो (*paho*), हलद्दा (*haladdā*) Mar. हळद (*haḷada*) from पथि (*pathi*), हरिद्रा (*haridrā*).

इ (*i*) becomes ए (*e*). M णेड्डं (*ṇeḍḍaṁ*), केरिसं (*kerisaṁ*), एरिसं (*erisaṁ*) from नीड (*nīḍa*), कीदृशं (*kidṛśaṁ*), ईदृशं (*īdṛśaṁ*).

उ (*u*) becomes इ (*i*) or ए (*e*). M. पुरिस, णेउरं (*purisa, ṇeuraṁ*), from पुरुष, नूपुरम् (*puruṣa, nūpuram*).

ऋ (*ṛ*) becomes अ, इ, उ, रि (*a, i, u, ri*) when initial and even रु (*ru*). M. तण (*taṇa*), वसह (*vasaha*) Mar. तण (*taṇa*), वसो (*vaso*); M. दिट्ठी, विंछुओ (*diṭṭhī, viṁchuo*), किवा (*kivā*), Mar. दिठी (*diṭhī*), विंचू (*viṁcū*), कींव (*kīva*); पाउसो (*pāuso*) माउस्सिआ (*māussiā*), Mar. पाउस (*pāusa*), माउशी (*mauśī*); रिणं (*riṇaṁ*), रिच्छो (*richho*), Mar. रीण, रीस; रुक्ख (*rīṇa, rīsa, rukkha*) Mar. रूख (*rūkha*) (in महारूख, *mahārūkha*); from तृण, वृषभ, दृष्टि, वृश्चिक, कृपा, प्रावृष्, मातृष्वसा, ऋण, ऋक्ष, वृक्ष (*tṛṇa, vṛṣabha, dṛṣṭi, vṛścika, kṛpā, prāvṛṣ, matṛṣvasā, ṛṇa, ṛkṣa, vṛkṣa*).

ए (*e*) sometimes becomes इ (*i*). M. विअणा (*viaṇā*) or वेअणा (*veaṇā*), Mar. वेणा (*veṇā*) from वेदना (*vedanā*); दिअरो (*diaro*), Mar. दीर (*dīra*) from देवर: (*devaraḥ*).

ऐ (*ai*) invariably becomes ए (*e*). M. सेलो (*selo*), तेलोक्कं (*telokkaṁ*), सेच्चं (*seccaṁ*) from शैल (*śaila*), त्रैलोक्यम् (*trailokyam*) and शैत्यम् (*śaityam*). But in certain cases it is split up as it were into its component parts; *e. g.* दइच्च (*daicca*) Mar. दइत्य (*daitya*) (in the speech of women etc.), चइत्तो (*caitto*) vul. Mar. चइत (*caita*), भइरव (*bhairava*), सइर (*saira*) vul. Mar. सइरट (*sairaṭa*), from दैत्य, चैत्र, भैरव, स्वैर (*daitya, caitra, bhairava, svaira*). In सिंधवं (*siṁdhavaṁ*) the ऐ (*ai*) of सैंधव (*saiṁdhava*) is weakened; which is perhaps due to the *ānusvāra* which affects the quantity. In the Mar. शेंदेलोण (*śendeloṇa*) the ए (*e*) is regular. धीरं (*dhīraṁ*) shows a weakening of ऐ (*āi*) in धैर्यम् (*dhairyam*).

औ (*au*) in the same way becomes ओ (*o*). कोसंबी, जोव्वण (*kosāṁbī, jobbaṇā*), H. जोबन (*jobāna*) from कौशाम्बी, यौवन

(*kāuśāmbī, yauvana*). औ (*au*) is also weakened to उ (*u*) in कउरव (*kaurava*), पउरिस (*paurisa*) from कौरव, पौरुष (*kaurava, pauruṣa*).

(*b*) *Change in quantity*:—The quantity of syllables in Prākrits is affected by the assimilation and loss of conjuncts. Whenever a conjunct is simplified, and it is invariably the case in Prākrits with the exception sometimes of the Māgadhī, the preceding vowel is lengthened in order to preserve the quantity. This rule is thus given by Hemacandra[1] in a limited form. 'The vowel preceding a य्, र्, व्, श्, ष् or स् (*y, r, v, ś, ṣ, s*) that is dropped is lengthened.'

e. g. M. कासमो, वीसामो, (*kāsavo, vīsāmo*) Mar. विसांवा, वीसासो, पूसो (*visāvā, visāso, pūso*) Mar. पूस, (*pūsa*) from कश्यपः विश्रामः, (*kaśyapaḥ, viśrāmaḥ*) विश्वासः, पुष्यः (*viśvāsaḥ, puṣyaḥ*).

Other examples are पाडिवाआ (*pāḍivāā*) Mar, पाडवा, (*pāḍavā*), सारिच्छो (*sāriccho*). Mar. सारिखा (*sārikhā*) or सारखा (*sārakhā*) दाहिण, जीहा (*dāhiṇa, jīhā*) Mar. जीभ, मरहट्ठ, (*jībha, marahaṭṭa*) from प्रतिपत्, सदृक्षः (*pratipat, sadṛkṣaḥ*) दक्षिणः, जिह्वा (*dakṣiṇaḥ jihwā*) महाराष्ट्रः (*mahārāṣṭraḥ*).

On the contrary, if the conjunct is retained, the preceding long vowel is shortened.[2]

e. g. M. अम्बं (*ambaṁ*), अम्बा (*ambā*), मुणिन्दो (*muṇindo*), चुण्णो, नरिन्दो, अहरुट्ठं (*cuṇṇo, narindo, aharuṭṭhaṁ*) from आम्र, मुनीन्द्र (*āmra, munīndra*), चूर्ण (*cūrṇa*), नरेन्द्र, अधरोष्ठ (*narendra, adharoṣṭha*).

Since an *anusvāra* gives to a syllable the quantity of a conjunct, it causes lengthening when it is dropped.

e. g. सीहो, वीसा (*sīho, vīsā*), Mar. वीस (*vīsa*), तीसा (*tīsā*), Mar. तीस (*tīsa*), from सिंह, विंशति (*siṁha, viṁśati*), त्रिंशत् (*triṁśat*). The same is the case with the *visarga*; दूसहो (*dūsaho*) from दुःसह (*duḥsaha*).

1. I. 43.
2. Hemacandra I 84.

Often, however, vowels are lengthened or shortened without any apparent cause.

e. g. पाणिअं, गहिरं (*paṇiaṁ, gahiraṁ*) Col. Mar. गहिरा-(*gahirā*), आणिअं (*āṇiaṁ*), Mar. आणि–(लेलें) (*āṇi–(lelē)*, सूहवो (*sūhavo*).

Sometimes ए (*e*) and ओ (*o*) represent an अय (*aya*) or अव (*ava*), *e. g.* थेरो (*thero*), तेरह (*teraha*) for स्थविरः (*sthaviraḥ*) त्रयोदश (*trayodaśa*) and ओग्गह (*oggaha*), ओसप्पिणी (*osappiṇī*), for अवग्रह (*avagraha*), अवसर्पिणी (*avasarpiṇī*).

Such an ओ (*o*) is sometimes further weakened. *e. g.* उग्गह (*uggah*), from अवग्रह (*avagraḥa*); उट्ठ (*uṭṭha*) for ओट्ठ (*oṭṭha*) from ओष्ठ (*oṣṭa*) ओ (*o*) often takes the place of उ (*u*) before conjuncts. *e. g.* तोण्ड (*toṇḍa*), Mar. तोण्ड (*toṇḍa*), from तुण्ड; (*tuṇḍa*), Mar. सोण्ड (*soṇḍa*), from शुण्डा (*suṇḍa*).

N. B.—Examples are chosen from M. only because there is a general agreement in this respect amongst the Prākrits.

(*c*) Vowels are often dropped in Prākrits without any apparent cause. रण्णं (*raṇṇaṁ*) from अरण्यम् (*araṇyam*), वि (*vi*) and पि (*pi*) from अपि (*api*), not in the beginning of a sentence; व (*va*) from इव (*iva*) also in combinations: ति or (*ti*), त्ति (*tti*), after a word, दाणिं (*dāṇiṁ*) from इदानीम् (*idānīm*). This may perhaps be due to loss of accent. The Ardhamāgadhī shows words like दक (*daka*) from उदक (*udaka*), गार (*gāra*) from अगार (*agāra*), हेट्ठा (*heṭṭā*), from अधस्तात् (*adhastāt*), वक्कमइ (*vakkamai*) from अपक्रामति (*apakrāmati*). The Māhārāṣṭrī too has रहट्ट (*rahaṭṭa*) from अरघट्ट (*araghaṭṭa*) वअंस (*vaaṁsa*) from अवतंस (*avataṁsa*).

b. *The Consonants*:—Like inflections, these serve to show the difference between the several Prākrits clearly. The vowels are not of much use from that point of view.

Here the Māhārāṣṭrī, Ardhamāgadhī and Śaurasenī show a closer resemblance with one another, than the Māgadhī and

Paiśācī. Māhārāṣṭrī, however, shows the consonants in a much more degenerate state than even the Ardhamāgadhī.

(a) Initial consonants generally remain unchanged except त् (*t*) which in Śaurasenī and Māgadhī becomes द्: *e. g.* दाव-तावत्, (*dāva-tāvat*) and द् (*d*) which in Māhārāṣṭrī sometimes becomes ड् (*ḍ*) *e. g.* डहइ (*ḍahai*), Mar. डाह (*ḍāha*), डसइ (*ḍasai*), Mar. डसणे (*ḍasaṇe*), and क् (*k*), which in almost a single case—perhaps borrowed—becomes च् (*c*), *e. g.* चिलाओ (*cilāo*),—किरातः (*kirātaḥ*), or ख् (*kh*), in खुज्ज-कुब्ज (*khujja-kubja*), or ग् (*g*), in गेन्दुअ-कन्दुक (*gendua-kanduka*), प्, त्, न्, म्, (*p, t, n, m*), also are changed in some cases; *e. g.* फाडेइ-पाटयति (*phāḍei-pāṭāyati*), टगर-तगर (*ṭagara-tagara*) णअरं-नगरं (*ṇaraṁ nagaraṁ*), लिम्ब-निम्ब (*limba-nimba*), ण्हाविअ (*ṇahāvia*), Mar. न्हावी-नापित (*nhāvī-nāpita*), वम्महो-मन्मथः (*vammaho-manmathaḥ*), which last is evidently a case of dissimilation. य् (*y*), invariably becomes ज् (*j*) in Māhārāṣṭrī, Ardhamāgadhī and Śaurasenī. जत्थ-यत्र, जसो-यशः; जाव-यावद्, जहा-यथा, जोव्वण-यौवन, जुहुट्ठिल-युधिष्ठिर (*jattha-yatra, jaso-yaśaḥ, jāva-yāvad, jahā-yathā, jovvaṇa-yauvana, juhuṭṭhila-yudhiṣṭhira*)

(*b*) Medially the single consonants क्, ग्, च्, ज्, त्, द्, प्, (*k, g, c, j, t, d, p,*), य् (*y*), and व् (*v*) are generally dropped in most Prākrits. *e. g.* लोओ-लोकः (*loo-lokaḥ*), नयरं-नगरं (*nayaraṁ-nagaraṁ*), कयग्गाहो-कचग्रहः (*kayaggāho-kacagrahaḥ*), गओ-गजः (*gao-gajaḥ*) रसायलं-रसातलं (*rasāyalaṁ-rasātalaṁ*), मयणो-मदनः (*mayaṇo-madanaḥ*), रिऊ-रिपुः (*riū-ripuḥ*), विओओ-वियोगः (*vioo-viyogaḥ*). म् (*m*) also follows them, but leaves its traces in an अनुनासिक (*anunāsika*); *e. g.* जँउणा-यमुना (*jaũṇā-yamunā*). The य् (*y*) that is seen to take the place of the dropped consonants is euphonic. Sometimes it is written, but sometimes not. This is what is called by Prākrit grammarians the यश्रुति (*yaśruti*).[1]

1. But in some cases, instead of being dropped some of these consonants are changed to those of other classes.

1. Hemacandra I, 180.

e. g. फलिह-स्फटिक (*phaliha–sphaṭika*), वेडिस-वेतस (*veḍisa–vetasa*), पडिवन्नं-प्रतिपन्नम् (*paḍivannaṁ–pratipannam*), दोहर-दोहल (*dohara–dohala*) कदम्ब-कळम्ब (*kadamba–kaḷamba*).

2. प् (*p*) in many cases becomes व् (*v*) सावो-शापः (*sāvo–śāpaḥ*), पाव-पाप (*pāva–pāpa*); rarely म् (*m*), आमिलो-आपीडः (*āmilo–āpīḍaḥ*) probably through आवेलः (*āvelaḥ*).

3. ट् (*ṭ*) becomes ड् (*d*); घडो-घटः (*ghaḍo–ghaṭaḥ*) घडई-घटति (*ghaḍai–ghaṭati*); sometimes also ळ् (*l*) as in फलिह (*phaliha*) and फालेइ (*phālei*) from स्फटिक (*sphaṭika*), पाटयति (*pāṭayati*). ठ् (*ṭh*) becomes ढ् (*ḍh*) as in पीढ-पीठ (*piḍa–pīṭha*); मढो-मठः (*maḍho–maṭhaḥ*) ट् (*ṭ*) becomes ळ (*l*) oftener than ट् (*ṭ*); and ड् (*d*), appears to change to ळ (*ḷ*); तलायं-तडागः (*talāyaṁ–aḍāgaḥ*). कीलइ-क्रीडति (*kīlai–krīḍati*), दालिमं (*dālimaṁ*) Mar दाळिम्ब-दाडिमं (*dāḷimba–dāḍimaṁ*).

4. The Paiśācī differs from the other Prākrits in changing the mediae into tenues, *e. g.* मतन-मदन (*matana–madana*), नकरं-नगरं (*nakaraṁ–nagaraṁ*), किरि-गिरि (*kiri–giri*), तामोतरः-दामोदरः (*tāmotaraḥ–dāmodaraḥ*).

5. The tenues aspirates and medial aspirates generally become ह् (*h*) in all Prākrits. *e. g.* साहा-शाखा (*sāhā–śākhā*), मेहो-मेघः (*meho–meghaḥ*) नाहो (*nāho*), old Mar. नाहो-नाथः (*nāho–nāthaḥ*), बहिरो (*bahiro*), Mar. बहिरा-बधिरः (*bahirā–badhiraḥ*), सहावो-स्वभाव (*sahāvo–svabhāvaḥ*). Exceptions are few, like पुधं-पृथक् (*pudhaṁ–pṛthak*), केढवो-कैटभः (*keḍhavo–kaiṭabhaḥ*). छ् (*cha*) and झ् (*jha*) remain the same, and फ् (*ph*) becomes भ् (*bh*) or ह् (*h*)—रेभो-रेफः (*rebho–rephaḥ*) मुत्ताहलं-मुक्ताफलं (*muttāhalaṁ–muktāphalaṁ*), सभरी (*sabharī*) and सहरी (*saharī*)–शफरी (*śapharī*).

In Paiśācī again, the medial aspirates become hard aspirates. मेखो–मेघः (*mekho-meghaḥ*), काठं–गाढं (*kāṭhaṁ-gāḍhaṁ*), मथुरं–मधुरं (*mathuraṁ–madhuraṁ*), रफसः–रभसः (*raphasaḥ–rabhasaḥ*), ताठा–दाढा–दंष्ट्रा (*tāṭhā–dāḍhā–daṁṣṭrā*).

6. Of nasals, the Māhārāṣṭrī, Śaurasenī, and Māgadhī show न्, ण् (*n, ṇ*), rarely ञ (*ñ*). The Paiśācī has a single न् (*n*) that serves the purpose of all the nasals. In M. initial न् (*n*) optionally, and other न (*na*) invariably, becomes ण् (*ṇ*). In Amg. and others initial न् (*n*) remains.

e. g. M. नअरं, णअरं (*naaraṁ, ṇaaraṁ*), Amg. नयरं (*nayaraṁ*) but नाणी, नाणं (*nāṇī, nāṇaṁ*). Even in M. the न (*na*) of the instr. sing. remains unchanged *e. g.* पुत्तेन (*puttena*), नयणं–नयनं (*nayaṇaṁ–nayanaṁ*), मदणो–मदनः (*madaṇo–madanaḥ*). Amg. shows अनल (*anala*), beside नाणं (*nāṇaṁ*).

7. र् (*r*) remains the same in all dialects except Māgadhī where it must become ल् (*l*). Mg. दलिद्दचालुदत्ते (*daliddacāludatte*), पुलिशे (*puliše*), M. and Ś. and Amg. चारुदत्तो (*cārudatto*), पुरिसो (*puriso*), तारिसो (*tāriso*), नयरं (*nayaraṁ*), रयणी (*rayaṇī*). There are, however, cases where in other dialects ल् (*l*) appears for र् (*r*); *e. g.* हलिद्दा (*halidḍā*), चलणो (*calaṇo*), वलुणो (*valuṇo*), इङ्गलो (*iṅgálo*), जढलं (*jaḍhalaṁ*) from हरिद्रा (*haridrā*), चरणः (*caraṇaḥ*), वरुणः (*varuṇaḥ*), अङ्गारः (*aṅgāraḥ*), जठरं (*jaṭharaṁ*). In Māhārāṣṭrī, Ardhamāgadhī and Śaurasenī apparently, they are to be regarded as Māgadhisms.

ल् (*l*) sometimes becomes ण् (*ṇ*), न् (*n*) in the dialects; नलाट (*nalāṭa*) or णडाल–ललाट (*naṭāla–lalāṭa*), णंगल–लांगल (*ṇaṁgala–lāṁgala*). In फिर (*phira*) it has become र् (*r*). In Paiśācī it has also become ळ् (*ḷ*) according to grammarians. सीळं, कुळं (*sīḷaṁ, kuḷaṁ*).

8. The three sibilants become स् (*s*) in all the dialects invariably, except a form of Māgadhī which shows श् (*ś*) for these uniformly. पुरिस (*purisa*), यारिसे (*yārise*), सोहइ (*sohai*), सेसो (*seso*), for पुरुष (*puruṣa*) यादृशः (*yādṛśaḥ*), शोभते (*śobhate*), शेषः (*śeṣaḥ*). But it appears that they are as often changed into a ह (*h*); *e. g.* दह (*daha*) Mar. दहा–दश (*dahā–daśa*), पाहाण–पाषाण (*pāhāṇa–pāṣāṇa*), सोण्हा (*soṇhā*) Mar. सून–स्नुषा (*sūna–snuṣā*); धनुह–धनुष् (*dhanuha–dhanuṣ*), तण्हा–तृष्णा (*taṇhā–tṛṣṇā*), दिअह–दिवस (*diaha–divasa*), हत्तरि–सप्तति (*hattari–saptati*). ष् (*ṣ*) sometimes becomes छ (*ch*). *e. g.* छट्ठो–षष्ठः (*chaṭṭho–ṣaṣṭhaḥ*), छम्मुहो–षण्मुखः (*chammuho–ṣaṇmukhaḥ*). Cf. छप्पय (*chappaya*), सोसयन्त (*sosayanta*), सेह (*seha*), सोम (*soma*) in *Kappasutta*[1] for षट्पद (*ṣaṭpada*), शोषयन्त (*śoṣayanta*), शैक्ष (*śaikṣa*), सौम्य (*saumya*).

9. Conjunct consonants are either assimilated, or simplified, in which case the preceding vowel is generally lengthened, or lastly split up by an intervening vowel.

(*a*) Very often the first member of a conjunct is assimilated with the following one; *e. g.* सक्क–सक्त (*sakka–sakta*), मुक्क–मुक्त (*mukka–mukta*), थंभ–स्तंभ (*thaṁbha–staṁbha*), रत्त (*ratta*) and also रग्ग (*ragga*) from रक्त (*rakta*); the semi-vowels ल्, र् (*l, r*) always assimilate with the other member; *e. g.* चक्कं (*cakkaṁ*), वक्कलं (*vakkalaṁ*) from चक्रं (*cakraṁ*), वल्कलं (*valkalaṁ*); but उव्विग्ग (*uvvigga*), उद्विग्नः (*udvignaḥ*).

(*b*) य् (*y*) and व् (*v*) often change to च् (*c*) and assimilate the first member to themselves; पच्चूष–प्रत्यूष (*paccūṣa–pratyūṣa*), चच्चर–चत्वर (*caccara–catvara*),

1. Ed. JACOBI, 1878.

शेज्जा–शय्या (*śejjā–śayyā*), वेज्जो–वैद्यः (*vejjo–vaidyaḥ*) and कज्जम्–कार्यम् (*kajjam–kāryam*), मज्झ–मध्य (*majjha–madhya*), ज्झाणं–ध्यानं (*jjhāṇaṁ–dhyānaṁ*). The Māgadhī retains य् (*y*) in these cases. *e. g.* विय्याहले (*viyyāhale*), अय्य (*ayya*), सुय्य (*suyya*) from विद्याधरः (*vidyādharaḥ*), अद्य (*adya*), सूर्यः (*sūryaḥ*).

(*c*) Nasals forming the second member are assimilated with the preceding consonant, *e. g.* उव्विग्ग–उद्विग्न (*uvvigga–udvigna*), अग्गि–अग्निः (*aggi–agniḥ*), जुग्ग–युग्म (*jugga–yugma*). य् (*y*) is assimilated with the preceding nasal:—रण्ण–अरण्य (*raṇṇa–araṇya*); अन्न–अन्य (*anna–anya*), किलम्मइ–क्लाम्यति (*kilammai–klāmyati*). Māgadhī and Paiśacī, however, have ञ्ञ (*ññ*) in these cases; *e. g.* अञ्ञ (*añña*), पुञ्ञ (*puñña*), अहिमञ्ञू (*ahimaññū*). ल्य (*lya*) gives ल्ल (*lla*); कल्ल–कल्यम् (*kalla–kalyam*).

(*d*) र् (*r*) with dental gives a double lingual; कवड्ड (*kavaḍḍa*) Mar. कवडी–कपर्द (*kavaḍī–kaparda*), गड्ढह–गर्दभ (*gaḍḍhaha–gardabha*), तुट्टइ–त्रुटति (*tuṭṭai–truṭati*).

(*e*) ष्क् (*ṣk*) and ष्ख् (*ṣkh*) give ख् (*kh*). निक्खमदि–निष्कामति (*nikkhamadi–niṣkrāmati*), चउक्ख (*caukkha*) Mar. चौक–चतुष्क (*cauka–catuṣka*); ष्ट (*ṣṭa*) and ष्ठ (*ṣṭha*) become ट्ठ (*ṭṭha*), *e. g.* अट्ठ–अष्ट (*aṭṭha–aṣṭa*), दिट्ठि–दृष्टि (*ditthi–dṛṣṭi*). In Māg. the combination स्ट (*ṣṭa*) is found for ष्ट (*ṣṭa*) and ष्ठ (*ṣṭha*)[1] *e. g.* चिस्टं, भस्टालिका (*ciṣṭa, bhaṣṭālikā*). स्त (*sta*) remains in Māg. but becomes त्थ (*ttha*) in other dialects; हस्त (*hasta*) and हत्थ (*hattha*) from हस्त (*hasta*). स्ना (*snā*) gives ण्हा (*ṇhā*) in all dialects. क्ष (*kṣ*) is represented either by ख्ख् (*kkh*) or च्छ (*cha*); उच्छू (*uchhū*), and इक्ख्

1. *Grammatik* pp. 185 ff.

(*ikkhū*); सारिच्छ (*sāriccha*) and सारिक्ख (*sārikkha*). For fuller treatment of conjuncts, see PISCHEL.[1]

(*f*) Conjuncts are often split up into two syllables by means of a vowel. This is more usually found in the Ardhamāgadhī.

e. g. उसिन–उण्ण (*usina–uṣṇa*), कसिन–कृष्ण (*kasina–kṛṣṇa*), सिनान–स्नान (*sināna–snāna*) in Amg. where other dialects, say the Māhārāṣṭrī, show उण्ह, कण्ह, ण्हाण (*uṇha, kaṇha, ṇhāṇa*). The Paiśācī also shows anaptyxis in words like भारिया (*bhāriyā*), सिनानं (*sināṇaṁ*), कसटं (*kasaṭaṁ*) from भार्या (*bhāryā*), स्नानं (*snāṇaṁ*) and कष्टम् (*kaṣṭam*). GRIERSON is perhaps right when he regards such words as clear Sanskritisms, made easy for pronunciation by the addition of a vowel.

The Māhārāṣṭrī and other dialects too show स्वरभक्ति (*svarabhakti*), as in किलम्मइ (*kilammai*), Sk. किलम्मदि–क्लाम्यति (*kilammadi–klāmyati*); M and Sk. मिलाण–म्लान (*milāṇa–mlāna*); M. Ś. वरिस (*varisa*) beside वास–वर्ष (*vāsa–varṣa*).

(*g*) Examples of simplification with compensatory lengthening are:—वीसामो–विश्रामः (*vīsāmo–viśrāmaḥ*); नीसासो–निःश्वासः (*nīsāso–niḥśvāsaḥ*), वीसत्थो–विश्वस्तः (*vīsattho–viśvastaḥ*), सीस–शिष्य (*sīsa–śiṣya*), सीह–सिंह (*sīha–siṁha*); ऊससिय–उच्छ्वसित (*ūsasiya–uchhvasita*).

(*h*) Consonants at the end of words are generally dropped in all dialects: जाव, दाव–यावत्, तावत् (*jāva dāva–yāvat, tāvat*), पच्छा–पश्चात्: (*pacchā–paścāt*); अभू–अभूत् (*abhū–abhūt*); अकासी–अकार्षीत् (*akāsī akārṣīt*). The स् (*s*) of the nom. sing. becomes ओ except in Māgadhī and Ardhamāgadhī where only it becomes ए (*e*). In Apbh. it is further weakened

1. Piśāca, Pāiśācī and the modern Piśācas, *ZDMG* for 1912.

into उ (*u*), पुत्तो, (*putto*) Pai. मेखो (*mekho*), Apbh पुत्तु (*puttu*), स् (*s*), in compounds becomes अ (*a*), as in जसवम्म-यशोवर्मन् (*jasavamma-yaśovarman*) sometimes it becomes ओ (*o*) as in Mg. शिलोलुह (*śiloluha*).

There are, besides, what PISCHEL calls Saṁdhi consonants in the Prākrits. *e. g.* म् (*m*) is in Amg. अन्नमन्नम् (*annamannam*) or अण्णमण्णम्-अन्योन्यम्: (*aṇṇamaṇṇam-anyonyam*); M. एक्कमेक्क (*ekkamekka*), Mar. एकमेक (*ekameka*), Amg. एगमेक-एकैक (*egameka-ekaika*). This म् is found in other cases also; गोणमाई-गवादि (*goṇamāi-gavādi*), हयमाई-हयादि (*hayamāi hayādi*), एसमाघाओ-एष अघातः (*esamāghāo-eṣa aghātaḥ*). Cases like दुयाहेण, तियाहेण, चउयाहेण (*duyāheṇa, tiyāheṇa, cauyāheṇa*), where PISCHEL[1] finds the सन्धि (*sandhi*) consonant य् (*y*), are perhaps better explainied in this way. In दुयाहेण (*duyāheṇa*) य् (*y*), is regular, as it is to be explained as due to स्वरभक्ति (*svarabhakti*) from व्यहेन (*dvyahena*); in the same manner, the य् (*y*), in तियाहेण (*tiyāheṇa*) is easily explained. In चउयाहेण (*cauyāheṇa*), however, it is to be explained as due to analogy of the former two cases. The य् (*y*) in these came to be looked upon as belonging to the form and was therefore added where it was not wanted regularly. दुयङ्गुल (*duyaṇgula*), सुयख्खाय (*suyakkhāya*) from व्यंगुल (*dvyṁagula*), स्वाख्यात (*svākhyāta*), are to be explained in the same manner. Amg. अणुरागयम् (*anurāgayam*), from अन्वागतम् (*anvāgatam*), is explained by PISCHEL as formed on the analogy of वायुरिव (*vāyuriva*)[2] सिहिरिव (*sihiriva*) where र् (*r*) is due to the nom. ending of the first member. But there is really hardly any analogy between these noun cases and the adverb अनु (*anu*). Beside this is not the way analogy works. For two forms to affect each other, they must belong to the same grammatical category. The analogy for अणुरागयं (*aṇurāgayaṁ*), is there-

1. *Grammatik* p. 240.
2. PISCHEL *op. cit.* p. 240.

fore to be looked for elsewhere; and it is supplied by the word पुणरवि (*puṇaravi*)[1] पुनः (*punaḥ*) generally becomes पुण (*puṇa*), but in combinations retains its ऱ् (*r*). This organic nature of the ऱ् (*r*) was forgotten and it was looked upon as a सन्धि (*sandhi*) consonant. Hence the ऱ् (*r*) in अणुरागयं (*aurāgayaṁ*). The form Amg. दुरङ्गुल (*duraṅgula*) again is to be explained as influenced by forms like चउरासीहम् (*caurāsīham*),[2] चउरन्त (*cauranta*) where ऱ् (*r*) is regular.

45. INFLECTION:—In declension and conjugation the Prākrits agree in a general way, when due allowance is made for phonetic changes. There is no consonantal declension, there is no perfect and conjunctive, and the preterite, which has lost the augment, shows the same set of terminations इत्था (*itthā*) and इंसु (*iṁsu*) for all the three persons; a few forms in अम् (*am*) and सी (*sī*) सीत् (*sīt*) are to be looked upon either as stray remnants of the old conjugation or as influenced by Sanskrit, which, as we have seen, has always exercised a potent and often disturbing influence over the Pāli and inscriptional languages. The same is the case with respect to the Prākrits.

a. Declension:—As remarked above, the consonantal class has disappeared from the Prākrits, as they, like the Pāli, suffer no consonant at the end of a word. A few stray forms of the consonantal class are to be regarded as old remnants; *e. g.* M. विअआ–विपदा (*Viaā–vipadā*); Amg. धम्मविओ–धर्मविद् (*dhammavio–dharmavid*), तेओ–तेजस् (*teo–tejas*), मनसा (*manasā*) मनसा (*manasā*), वयसा (*vayasā*), वचसा (*vacasā*); सरअ–शरद् (*saraā–śarad*).

The distinction in gender is often not kept up; the tendency to decline neuters like masculines appears to grow. Even in Sk. the neuters agreed with the masculines in all but the first two cases. The Prākrits have equalised even

1. *Kappasutta.* Ed. JACOBI, p. 160.
2. *Kappasutta,* p. 72.

there, तुङ्गो मणो–तुङ्गं मनः (*tuṅgo maṇo–tuṅgaṁ manaḥ*) तवो कओ–तपः कृतम् (*tavo kao–tapaḥ kṛtam*), Amg. तमे–तम (*tame–tamaḥ*):, मणे–मण (*maṇe–maṇaḥ*): These are cases of neuters in अस् (*as*) Neuters in अ (*a*) (as) also show the same tendency; the way was shown by the nom. plu. which in Prākrits, like the Veda, often end in आ (*ā*) and thus were not distinguishable from masc. forms. This was carried further and even singular forms were made after the masc. *e. g.* Amg. जीविए–जीवितम् (*jivie–jīvitam*), कम्म–कर्म (*kamma–karma*), वीरिए–वीर्यम् (*vīrie–vīryam*); Ś पवहणो–प्रवहनम् (*pavahaṇo–pravahanam*). This tendency is seen prevalent in the Amg., less so in the Mg. and rare in the other dialects.[1] अन् (*an*) neuters have been turned into अ (*a*) masculines according to the grammarians *e. g.* जम्मो (*jammo*), कम्मो (*kammo*), वम्मो (*vammo*) etc. Vararuci lays[2] down a rule that nouns in अन् (*an*), अस् (*as*) and the words प्रावृष (*prāvṛṣ*) and शरद् (*śarad*) are to be regarded as masculines. Hemacandra agrees with him; *e. g.* पाउसो (*pāuso*), सरदो (*sarado*), but सिरं (*siraṁ*), णहं (*ṇahaṁ*) which apparently are exceptions. The pronouns also are affected and अयम् (*ayaṁ*) serves for masc. fem. and neut, अयं दही–इदं दधि (*ayaṁ dahī–idaṁ dadhi*), cf. अयं धम्मलिपी (*ayaṁ dhammalipī*) of the inscriptions. The Apbh. according to Hemacandra,[3] observes no distinction in genders; लिङ्गमतन्त्रम् (*liṅgamatantram*) IV 445– the gender does not count, *e. g.* अब्भा–अभ्राणि (*abbhā–abhrāṇi*), अन्त्रडी–अन्त्राणि (*antraḍī–antrāṇi*). This, however, may be ascribed to metre.

There is no dual in the Prākrits. दो (*do*) and बे (*be*) are the only duals preserved.

Following are the terminations[4] for all classes, *i. e.* अ, इ, उ (*a, i, u*) etc.

1. PISCHEL. *op. cit.* p. 243.
2. *Prākṛtaprakāśa*, IV 18 Ed. COWELL p. 34.
3. *op. cit*, I 31, 32.
4. Vararuchi, *Prākṛta-prakāśa* V. Cowell p. 39 ff.

	Sing.	Pl.
N.	ओ, ए (*o, e*), nil	आ, ओ (*ā, o*) (for इ (*i*), and उ (*u*)
A.	म् (*m*)	ए, णो (*e, ṇo*) (for इ (*i*) and उ (*u*)
I.	(ए) (*e*) ण (*ṇa* or णं (*ṇaṁ*) हिं (*hiṁ*) णा (*ṇā* (for इ (*i*) and उ (*u*)	
Abl.	आ, दो, दु, हि (*ā, do, du, hi*)	हिंतो, सुंतो (*hiṁto, suṁto*)
Gen.	स्स, णो (*ssa, ṇo*) (for इ (*i*) and उ (*u*)	(आ) (*ā*) ण (*ṇa*)

There is no real *dative* in the Prākrits.

Neuters of all stems have म् (*m*) for nom. acc. sing. *e. g.*– वणं, दहिं, महुं (*vaṇaṁ, dahiṁ, mahuṁ*).

The few तृ (*tṛ*) stems agree generally with their Sk. counterparts, except in some cases like जामाअरेण (*jāmāareṇa*), भाअरेण (*bhāareṇa*). The stem राजन् (*rājan*) has preserved some old forms like राआणो (*rāāṇo*), राइणो (*rāiṇo*) or रण्णो (*raṇṇo*), रण्णा (*raṇṇā*). There are besides a few more examples of the consonantal declension. *e. g.* अप्पा, अप्पाणो (*appā, appāṇo*): आत्मा, आत्मानः (*ātmā, ātmānaḥ*); जुवा (*juvā*) and जुवाणो (*juvāṇo*): युवा, युवानः (*yuvā, yuvānaḥ*).

Examples of Prākrit declension

1 The अ (*a*) class.

	Masc. Singular.	Plural
N.	पुत्तो, पुत्ते (*putto, putte*) Amg. Mg., पुत्तु (*puttu*), Apbh.	पुत्ता (*puttā*) all dialects; पुत्ताओ (*puttāo*) Amg.
A.	पुत्तम् (*puttam*)	पुत्ते; पुत्ता (*putte, puttā*) M. Amg. only.
I.	पुत्तेण, पुत्तेणं (*putteṇa, putteṇaṁ*) (S. Mg. and P. पुत्तेण (*putteṇa*) only).	पुत्तेहिं (*puttehiṁ*), all, पुत्तेहि (*puttehi*) M. Amg.

Abl. पुत्ता (*puttā*) all dialects; पुत्ता (*puttā*), पुत्ताउ, पुत्ता (*puttāu, puttā*) all except Ś; पुत्ताहिं, पुत्ताहिंतो (*puttahiṁ, puttāhiṁto*) M. only; पुत्तादो (*puttādo*) Ś. Mg. only. Apbh. has पुत्तहे (*puttahe*), पुत्तहु (*puttāhu*); P. पुत्तातो (*puttāto*). पुत्तासुंतो पुत्ताहुंतो, (*puttāsuṁto, puttāhuṁto*) etc. Amg. also पुत्तेहिं (*puttehiṁ*); Apbh. पुत्तहु (*puttahu*).

G. पुत्तस्स (*puttassa*) all dialects Mg. पुत्तश्श (*puttaśśa*), पुत्ताह (*puttāh*); Apbh. पुत्तस्सु, पुत्तहो, पुत्तह (*puttassu, puttaho, puttah*). पुत्ताणं (*puttāṇaṁ*) all. पुत्ताण (*puttāṇa*) all. except S. Mg पुत्ताह (*puttāha*) Apbh.

L. पुत्ते (*putte*), all dialects; पुत्तम्मि पुत्तेसुं (*puttammi, puttesuṁ*) all, पुत्तेसु (*puttesu*) except S, Mg. M. and S. पुत्तंसि, पुत्तम्मि (*puttaṁsi, puttammi*) पुत्तही (*puttahī*) Apbh. Amg. पुत्तहिं (*puttahiṁ*) Mg. पुत्ति, पुत्तही (*putti, puttahī*) Apbh.

It will be easily observed that loc. sing. in म्मि (*mmi*), and अंमि (*aṁmi*) is borrowed from pronouns, as also the acc. pl. in ए (*e*). The instr. pl. एहिं, एहि (*ehiṁ, ehi*) is traceable to Vedic एभिः (*ebhiḥ*). The abl. pl. has a composite ending; it is made up of the instr. (एहि + तस्) (*ehi + tas*) and the abl. suffix; सुन्तो (*sunto*) also is traceable to the loc. सुं + तः (*suṁ + taḥ*). This shows that the three cases really are interdependent, as their functions are very similar.

II. Feminines in आ (*ā*)

	Sing.	Plu.
N.	माला (*mālā*)	मालाओ मालाउ (*mālāo, mālāu*) except Ś. Mg.
A.	मालम् (*mālam*)	Do.

	Sing.	Plu.
I.	मालाए (*mālāe*), M. has also मालाइ (*mālāi*), मालाअ (*Mālāa*)	मालाहिं, मालाहि(*mālāhiṁ, mālāhi*) except Ś. Mg.
Abl.	मालाओ, मालाउ (*mālāo, mālāu*) M. Amg. मालादो (*mālādo*) Ś. Mg.	मालाहिंतो, मालाहु (*mālāhiṁto, mālāhu*) Apbh.
G. & D.	मालाए (*mālāe*), M. also मालाइ (*mālāi*) मालाअ (*mālāa*) A. मालाहे (*mālāhe*).	मालाणं मालाण (*mālāṇaṁ mālāṇa*) except Ś. Mg.
L.	The same as Gen.	मालासु, मालासुं (*mālāsu, mālāsuṁ*)

III. Stems in इ.

	Sing.	Plu.
N.	अग्गी (*aggī*),	अग्गिणो अग्गी, अग्गी, अग्गीओ (*aggiṇo, aggī, aggī, aggīo*).
A.	अग्गिम् (*aggim*)	Do.
I.	अग्गिणा (*aggiṇā*)	अग्गीहिं अग्गीहि (*aggīhiṁ, aggīhi*) except Ś. Mg.
Abl.	अग्गिणो अग्गीहिंतो अग्गीओ (*aggiṇo, aggīhiṁto, aggīo*). S. Mg. अग्गी (*aggī*).	अग्गीहिंतो, अग्गीहुं (*aggīhiṁto, aggīhuṁ*) Apbh.
G.	अग्गिणो, अग्गिस्स (*aggiṇo, aggissa*) except Ś. Mg.	अग्गीणम् (*aggīṇam*), अग्गीण (*aggīna*) except Ś. Mg.
L.	अग्गिम्मि (*aggīmmi*); अग्गिंसि (*aggīṁsi*), Apbh. अग्गीहिं (*aggīhi*).	अग्गीसु, अग्गीसुं (*aggīsu, aggīsuṁ*).

IV. Stems in उ (*u*).[1]

	Sing	Pl.
N.	वाऊ (*vāū*)	वाउणो, वाअओ (*vāuṇo, vāao*), वाऊ, वाउओ (*vāū, vāuo*) also)
A.	वाउम् (*vāum*)	वाउणो, वाऊ (*vāuṇo, vāū*)
I.	वाउणा (*vāuṇā*)	वाउहिं, वाउहि (*vāuhiṁ, vāuhi*) except Ś and Mg.
Abl.	वाउओ, वाऊउ (*vāuo, vāūu*) etc.	वाउहिं (*vāuhiṁ*), also वाउहिन्तो–सुन्तो (*vāuhinto–sunto*)
G.	वाउणो, वाउस्स (*vāuṇo, vāussa*)	वाऊणम्, वाऊण (*vāūṇam, vāūṇa*) except Ś and Mg.
L.	वाऊसु, वाऊसुं (*vāūsu, vāūsuṁ*)	वाउम्मि, वाउंसि (*vāummi, vāumsi*).

The following forms of feminine bases in इ (*i*) and उ (*u*) should be noted:—बुद्धीओ (*buddhīo*), धेणूओ (*dheṇūo*) nom. pl., बुद्धी, धेणू (*buddhī, dheṇū*) nom. sing. and acc. pl., बुद्धिं, धेणूं (*buddhiṁ, dheṇuṁ*) acc. sing., बुद्धीहिं, धेणूहिं (*buddhīhiṁ, dheṇuhiṁ*) instr. pl., बुद्धीअ (*buddhīa*), धेणूअ (*dheṇua*) gen. sing., बुद्धीअ, धेणूअ (*buddhīa, dheṇūa*) instr. sing., बुद्धीअ (*buddhīa*), बुद्धीआ (*buddhīā*), बुद्धीइ (*buddhīi*), बुद्धीए (*buddhīe*) are forms of instr. abl. gen. and loc. Hemacandra III 29. There are corresponding forms of feminine उ (*u*) bases like धेणूअ (*dheṇūa*), धेणूआ (*dheṇūā*), धेणूइ (*dheṇūi*), धेणूए (*dheṇūe*).

But this great class has been sacrificed to the peculiar phonology of the Prākrits, which leans towards lengthening a short final. In literature, the *Karpūramañjarī* for example shows the following forms :—

दिट्ठिं (*diṭṭhiṁ*) I 18, दिट्ठी (*diṭṭhī*) I 28, विडूरभूमिं (*viḍūra-bhūmiṁ*) I 34, मञ्जरीओ (*mañjarīo*) III 13, मुट्ठीअ (*muṭṭhīa*)

1. Vararuci, V 14-18, Hemacandra III 16-26, PISCHEL *op. cit.* 262-3.

I 30 instr. sing., रइं (*raiṁ*) IV 9, रुच्चिस्स (*ruccissa*) III 14, रीईओ (*rīio*) I 1 nom. pl., रीदीणं (*rīdīṇaṁ*) I 20, केदईलट्ठीए (*kedaīlaṭṭhīe*) II 6 gen. sing ; दिट्ठया (*diṭṭhayā*) the regular inst. sing. of दिट्ठि (*diṭṭhi*) has become an indeclinable.

V. Stems in ऋ (*ṛ*) are rare, as the Prākrits have changed it, but there are some few forms still left of this declension-

	Sing.	Pl.
N.	भत्ता (*bhattā*), Km. II 8, Ś भट्टा (*bhaṭṭā*),	भत्तारो (*bhattāro*), also भत्तू भत्तुणो[1] (*bhattū, bhattuṇo*)
A.	भत्तारं (*bhattāraṁ*), Mg. भस्टालम् (*bhaṣṭālam*)	भत्तारे (*bhāttāre*)
I.	भत्तुणा, भत्तारेण (*bhattuṇā, bhattāreṇa*)	भत्तारेहिं, भत्तूहिं (*bhattārehiṁ*) (*bhattūhiṁ*),
G.	भत्तुणो (*bhattuṇo*) Km. I 11, भत्तारस्स (*bhattārassa*)	...
L.	भत्तारे (*bhattāre*)	भत्तोरेसु, भत्तूसु (*bhattoresu, bhattūsu*)

But forms like मादाए (*mādāe*), gen. sing. Km. I 20 show the way this declension has gone. Hemacandra[2] gives माआ माअरा (*mā, māarā*); माअं, माअरं (*māaṁ, māaraṁ*); माआए, माअराण (*māāe, māarāṇa*) or माईण (*māīṇa*), as nom., acc., gen. forms of मातृ (*mātṛ*). In the same way पितृ (*pitṛ*) has double forms, one set from an उ (*u*) base as पिउणो (*piuṇo*), पिउणा (*piuṇā*), पिऊहिं (*pīūhiṁ*), पिऊसु *pīūsu*), and another set from the ऋ (*ṛ*) base as पिअरं (*piaraṁ*), पिअरेण (*piareṇa*), पिअरेहिं (*piarehiṁ*).

गो (*go*), and नौ (*nau*) follow closely their declension in Sanskrit as गाओ (*gāo*), गोहिं (*gohiṁ*), गवं (*gavaṁ*), from गावः

1. Hemacandra III, 44
2. II 46.

(*gāvaḥ*), गोभिः (*gobhiḥ*), गवां (*gavām*), show. नौ (*nau*) has नावाए (*nāvāe*) instr., नावाओ (*nāvāo*), abl. which do not follow the Sk. declension.

VI. Stems in त् (*t*), or अन्त् (*ant*), and न् (*n*) or अन्, मन्, वन्, (*an*), (*man*) (*van*), are preserved to a certain extent. But here too the tendency is to turn them into the अ (*a*) class, by adding that vowel to the final or dropping it

	Sing.	Pl.
N.	राजा (*rājā*)	राआणो (*rāāṇo*), also राआ (*rāā*)
A.	राजानं (*rajānaṁ*) but also रायं (*rāyaṁ*)	राआणो (*rāāṇo*), also राए, राआ (*rāe, rāā*)
I.	रण्णा, राइणा (*raṇṇā, rāiṇā*), but also राएण (*rāeṇa*),	राआहिं (*rāāhiṁ*), राएहिं (*rāehiṁ*)
Abl.	रण्णो, राइणो (*raṇṇo, rāiṇo*), but also राआदो, राआहिन्तो (*rāādo, rāāhinto*)	रायाउ, रायाहिंतो (*rāyāu, rāyāhiṁto*)
G.	रण्णो, राइणो (*raṇṇo, rāiṇo*) also रायस्स (*rāyassa*), Pa. रञ्ञो (*rācino*)	राईणम्, राआणम् (*rāīṇam, rāāṇam*),
	राइम्मि, राअम्मि, राए (*rāimmi rāammi, rāe*)	राईसुम् (*rāīsum*) etc.

(*i. e.* no form from consonantal base)

For आत्मा (*ātmā*), ब्रह्मन्, युवन् (*brahman, yuvan*) and other consonantal stems, see Hemacandra III 56, PISCHEL *Grammatik* pp. 281 ff. Stray forms like मघोनो (*maghono*) side by side with मघवं (*maghavaṁ*) show how hard this class struggled before dying; the Sanskrit always supported such stray strugglers.

Feminine consonantal forms have merged into the आ (*ā*) class. दिश (*diś*) therefore becomes दिसा (*disā*). पडिवआ, वाचा, धुरा (*paḍivā, vācā, dhurā*) are other examples. विद्युत् (*vidyut*) becomes विज्जू (*vijjū*) and follows the ऊ (*ū*) declension which is quite regular.

(*b*) Adjectives follow nouns in declension. They have two grades of comparison as in Sk., formed by the suffixes तर, तम, ईयस्, इष्ठ (*tara, tama, īyas, iṣṭha*) with due phonetic changes.

M. उज्जलअर (*ujjalaara*) Amg. पियय्म (*piyayama*), Ś पिअदम (*piadama*)

Amg. दढयर (*daḍhayara*)

Ś. भूओ–भूयस् (*bhūo–bhūyas*) Ś. भूइट्ठ (*bhūiṭṭha*)

पेज्ज-प्रेयस् (*pejja-preyas*) जेट्ठ (*jeṭṭha*)

(*c*) The Prākrits have pronouns like the Pāli, with which they agree in declension.

First person अहम् (*aham*), Mag. हगे (*hage*); मम्, ममम्, मे (*mama, mamam, me*); मए, मइ (*mae, mai*); ममाओ (*mamāo*), ममाहिन्तो (*mamāhinto*); मम, मह, मज्झ, मज्झम् (*mama, maha, majjha, majjham*), A. महु (*mahu*); मइ, ममम्मि (*mai, mamammi*) are the several cases in the singular; and अम्हे (*amhe*), Mg. हगे (*hage*) also अम्हे, अम्ह, णो, णे (*amhe, amha, ṇo, ṇe*); अम्हेहिं (*amhehiṁ*); अम्हतो, अम्हेहिंतो (*amhato, amhehinto*); अम्हाणं, अम्हम् अम्ह or म्ह (*amhāṇaṁ, amham, amha, mha*), also णो, णे (*ṇo, ṇe*); अम्हेसु, अम्हासु (*amhesu, amhāsu*) in the plural.

It must be noted that Hemacandra[2] gives several alternative forms for each case of this pronoun. Probably they were dialectic variations; no other explanation is possible. This also suggests that the literary Māhārāṣṭrī and other Prākrits were really based upon spoken dialects and not 'artificial' languages. There is no reason to doubt either the veracity or the ability of Hemacandra, simply because in the Prākrit literature that is so far available, these forms can not be satisfactorily traced.[3]

1. Vararuci IV 7. *striyāmāt.*
2. *op. cit.* III 105 ff.
3. See PISCHEL *op. cit.* p. 293 on this point.

हगे (*hage*) of the Māgadhī must go back upon अहकम् (*ahakam*), with the dropping of the initial and softening of the surd. This is seen in the modern vernaculars in forms like H. हम् (*ham*), or Koṅkaṇi Marāṭhī हांव (*hāva*). In ममं (*mamã*), ममाओ (*mamão*), ममाहि (*mamāhi*), ममस्स (*mamassa*), the Sk. genitive is taken as the secondary base.

Second person :—तुमम्, तुम् (*tumam, tum*), Apbh. तुहु (*tuhu*); तुमम्, ते (*tumam, te*); तए, तइ, तुए, तुमए (*tae, tai, tue, tumae*); तत्तो, तुमाहि (*tatto, tumāhi*), तुमाहिंतो (*tumāhiṁto*); तव तुज्झ, तुह, तुम्भ (*tava, tujjha, tuha, tubbha*) etc; तइ तुमम्मि तुमे (*tai tumammi, tume*). See besides the alternative forms in Hemacandra[1].

It is clear that there are two bases underlying these forms, the Sk. त्वम् (*tvam*), which with proper phonetic change becomes तुम्-तु (*tum–tu*), and तुम (*tuma*). The one gives तुम्, तुए, तत्तो (*tum, tue, tatto*), etc, and the latter तुमम् (*tumam*), तुमए (*tumae*), तुमाहि (*tumāhi*), etc. तुम (*tuma*), is also the base of the plural forms of this pronoun in Marāṭhī; तुम्ही (*tumhī*) and तुमचा (*tumacā*), etc. The same remark holds good with regard to the pronoun of the first person.

Plural :—तुम्हे, तुम्भे (*tumhe, tubbhe*), Apbh. तुम्हइ (*tumhai*), which gives तुम्ही (*tumhī*), in Marāṭhī; all these and वो (*vo*); तुम्हेहिं (*tumhehiṁ*), तुम्भेहिं (*tubbhehiṁ*), also भे (*bhe*); तुम्हत्तो (*tumhatto*), तुज्झत्तो (*tujjhatto*), तुम्हत्तो (*tuyhatto*), etc; तुम्हाणं (*tumhāṇaṁ*), तुम्हम्, तुम्ह (*tumham, tumha*), etc; तुम्हेसु (*tumhesu*), तुज्झेसु (*tujjhesu*), etc.

Third person :—सो (*so*), and से (*se*), are the only forms of the base for this person. For the other cases and even for the plural of the nom., forms of the demonstrative base त (*ta*), are used.

ते; तेण, तेणं (*te*; *teṇa, teṇaṁ*), f. ताए, तीए (*tãe, tīe*); ताओ, तत्तो, तदो (*tão, tatto, tado*); तम्हा (*tamhā*), तस्स, तश्श, तह (*tassa,*

1. *op. cit.* III 90 to 104.

taśśa, taha), f. तिस्स, तीए, ताए (*tissa, tīe, tāe*); तम्मि, तंसि, तश्शिम् (*tammi, taṁsi, taśśim*). तत्थ (*tattha*) and तहिं (*tāhiṁ*), are used as adverbs of place, but they are loc. of the same base.

Then there are the इदम्, एतत् (*idam, etat*) bases, the relative pronoun यत् (*yat*) and the interrogative किम् (*kim*), which give forms like इमो, इमे (*imo, īme*); इमं, इमे (*imaṁ, ime*); इमेण, इमस्स; इमस्सिं; एहि, एसु (*imeṇa, imassa, imassiṁ, ehi, esu*) and f. आहि, आसु (*āhi, āsu*). किम् (*kim*) gives को, के, कं, के; केण; कओ, कम्हा, कदो; कस्स (*ko, ke; kaṁ, ke; keṇa; kao, kamhā, kado; kassa*), etc. for which see Hemacandra III 63 to 85.

(*d*) The Prākrit numerals are एक्क (*ekka*), cf. Mar. एका (*ekkā*); दो, दुवे, बे (*do, dube, be*), दोण्णि (*doṇi*); तओ, तिण्णि (*tao, tiṇṇi*); चत्तारो, चदस्सो, चत्तारि (*cattāro, cadasso, cattāri*); पञ्च, छ, सत्त अट्ठ (*pañca, cha, satta, aṭṭha*) and अड (*aḍha*) also, नव (*nava*), दस-दह-दश (*dasa-daha-daśa*). They are inflected in the regular manner.

The numbers from eleven upwards are also formed like Sanskrit:—एक्कारस (*ekkārasa*) or इक्कारस (*ikkārasa*) Amg., एआरह (*eāraha*) M., एकातस (*ekātasa*) Paī; Amg. बारस (*bārasa*), M. बारह (*bāraha*) from which Mar. बारा (*bārā*); Amg. तेरस (*terasa*), M. तेरह (*teraha*); चोद्दह, चउद्दस (*coddaha, cauddasa*), चउद्दह (*cauddaha*), cf. Mar. चौदा (*caudā*); पण्णरस (*paṇṇarasa*), पण्णरह (*paṇṇaraha*) Apbh. cf. Mar. पन्धरा (*pandharā*) where ध् (*dh*) is euphonic; सोळस, सोळह (*soḷasa, soḷaha*); सत्तरस, सत्तरह (*sattarasa, sattaraha*); अट्ठारस (*aṭṭhārasa*), अट्ठारह (*aṭṭhāraha*), H. अट्ठारा (*aṭṭhārā*), Mar. अठरा (*atharā*). Nineteen is Amg. एगूणवीसम् (*egūṇavīsam*), Apbh. एगूणविंसा (*egūṇaviṁsā*); cf. Mar. एकूणीस (*ekūṇīsa*) or एकोणीस (*ekoṇīsa*). Amg. has also अऊणवीसई (*aūṇavīsaī*) or वीसम् (*visam*). The further nines are formed in the same way. वीसई (*vīsaī*) or वीसम् (*vīsam*). तीसई (*tīsaī*) or तीसम् (*tīsam*) (cf. तेत्तीसमा (*tettīsamā*), Mar. तेत्तीस (*tettīsa*) चत्तालीसम् (*cattālīsam*) or सा (*sā*), चायालीसम् (*cāyālīsam*) which is the previous step to the contraction चालीस (*cālīsa*) in Jain,

Māhārāṣṭrī.[1] All the dialects contract it still further when a number like two, three is prefixed to it. *e. g.* Amg. बायालीसम् (*bāyālīsam*), तेयालीसम् (*teyālīsam*) etc. चाली (*cālī*) is another contracted form of the same word; we find this when children repeat their multiplication tables, like एकेचाळ, बेचाळ (*ekecāḷa, becāḷa*). पण्णासम् (*paṇṇāsam*), पण्णासा (*paṇṇāsā*) or पन्ना (*paṇṇā*), in the further numbers पण्णम् (*paṇṇam*) or–वण्णम् (*vaṇṇam*), cf. Mar. बावन, त्रेपन (*bāvana, trepana*) etc. सट्ठिं, सट्ठी (*saṭṭhiṁ, saṭṭhī*)–short in compounds, सत्तरिम् (*sattarim*) or सत्तरि (*sattari*), cf. बावत्तरि (*bāvattari*) for seventy–two, असीइम् (*asīim*) or असीइ (*asīi*), cf. चोरासी (*corāsī*) for eighty–four, णउइं (*ṇauim*), णउई (*ṇauī*) cf. Mar. पञ्चाण्णव (*pañcāṇṇava*). Word for hundred is M. सअ (*saa*) cf. Mar. शे (*śe*). Amg. सय (*saya*) Ś. Mg. सद (*sada*), for thousand is सहस्स (*sahassa*). The हजार (*hajāra*) of the vernaculars is a loanword from the Iranian branch.

b. CONJUGATION:—The Prākrits have lost more here than in declension. The tendency of removing consonants from ends of words by adding अ (*a*) observed in declension, has also disturbed the whole conjugational system, making it easier and more uniform. The *ātmanepada* is entirely lost, some dialects showing stray participles in that *pada*. There is naturally no dual. Of moods, the subjunctive is entirely given up; of tenses the conditional, the imperfect, with the exception of the rare आसि (*āsi*) or आसी (*āsī*)=आसीत् (*āsit*), the perfect are given up. There is a tendency to substitute in their place what BHANDARKAR[2] calls the nominal construction, *i. e.* use of participles with the *verbum substantivum*.

For personal terminations, see Hemacandra III 139. 147. He gives some *ātmanepada* terminations like से, न्ते (*se,*

1. JACOBI, *Erzählungen*, p. 10.
2. *Phil. Lectures* p. 21–22.

nte); इरे (*ire*), but as said above, they are rarely used in literature.

मि (*mi*) or म्हि, मो (*mhi, mo*) or म्ह म्हो, (*mha, mho*) for the first person; सि, हि से, त्था, थ, ध (*si, hi, se, tthā tha, dha*), and ह (*ha*) for the second, and इ, ए, दि, न्ति, न्ते, इरे (*i, e, di, nti, nte, ire*), for the third, according to Hemacandra. अत्थि (*atthi*) from अस्ति (*asti*) is used for all persons and numbers.

I. Conjugation of stem वट्ट (*vaṭṭa*), Sk. वृत् (*vṛt*) in the present.

		Apbh. has:—
वट्टामि (*vaṭṭāmi*)	वट्टामो (*vaṭṭāmo*)	वट्टउं (*vaṭṭauṁ*) वट्टहुं (*vaṭṭahuṁ*)
वट्टसि (*vaṭṭasi*)	वट्टह, वट्टध (*vaṭṭaha, vaṭṭadha*) Ś., Mg. वट्टथ (*vaṭṭahta*) Paiś.	वट्टसि–हि (*vaṭṭasi–hi*) वट्टहु (*vṭṭahu*)
वट्टइ, वट्टदि (*vaṭṭai, vaṭṭadi*) Mg. Ś. वट्टति (*vaṭṭati*) Paiś.	वट्टन्ति (*vaṭṭanti*)	वट्टइ (*vaṭṭai*) वट्टहिं (*vaṭṭahiṁ*)

The ātmanepada forms would be:—वट्टे, वट्टसे, वट्टए or वट्टदे (*vaṭṭe, vaṭṭase, vaṭṭae vaṭṭade*), and वट्टन्ते (*vaṭṭante*), others wanting.

Stray ātm. forms are found in literature; *e. g.* जाणे, मन्ने (*jāṇe, manne*) लहे (*lahe*), सोहसे (*sohase*), मण्णदे (*maṇṇade*), लपते (*lapate*), विहन्ते (*bīhante*). For more examples see PISCHEL.[1] As in the Veda and Pāli, forms in इरे (*ire*) are also found *e. g.* पुप्फिरे (*pupphire*), हसिरे (*hasire*).

II. The same stem in the optative. Cf. Hemacandra III. 177, 178.

वट्टेज्जा (*vaṭṭejjā*), वट्टेज्ज (*vaṭṭejja*), वट्टेज्जाम (*vaṭṭejjāma*) वट्टेज्जामि (*vaṭṭejjāmi*)

(वढेज्जा, हस्सेज्जा (*vaḍhejjā, hassejjā*) in Hc.)

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[1] *Grammatik.* p. 324–25.

वट्टेज्जासि (*baṭṭejjāsi*), वट्टेज्जाहि–ज्जसि (*vaṭṭejjāhi–jjasi*) and–ज्जहि (*jjahi*) also — वट्टेज्जाह (*vaṭṭejjāha*) or ज्जह (*jjaha*)

वट्टेज्जा (*vaṭṭejjā*), वट्टेज्ज (*vaṭṭejjā*) — वट्टेज्जा–वट्टेज्ज (*vaṭṭejjā–vaṭṭejja*).

It will be seen that the forms for the first sing. and third sing. and plu. are the same. There are also the forms Ś. वट्टेअम् (*vaṭṭeam*), वट्टे (*vaṭṭe*) first sing., Amg. वट्टे (*vaṭṭe*), Apbh. वट्टे (*vaṭṭi*) second sing. and Amg. Ś. Mg. वट्टे (*vaṭṭe*) third sing. and pl. For forms in literature, mostly Jain, see PISCHEL, *Grammatik* p. 326 to 330.

This mood is, according to PISCHEL, very frequent in the Ardhamāgadhī and Jaina Māhārāṣṭrī; not so frequent in the Māhārāṣṭrī and very rare in the other dialects.

III. Imperative forms of the same stem. Cf Hemacandra III 173–176.

हसामु (*hasāmu*), पेच्छामु (*pecchāmu*) in Hc. — वट्टामो (*vaṭṭāmo*), also वट्टह्म (*vaṭṭahma*) in dialects except Amg. हसामो (*hasāmo*), हसाम (*hasāma*), हसेम (*hasema*) in Hc.

वट्ट वट्टसु, वट्टेसु, (*vaṭṭa, vaṭṭasu, vaṭṭesu*) — वट्टह, वट्टध (*vaṭṭaha, vaṭṭadha*), Ś. Mg., वट्टहु–ट्टेहु (*vaṭṭahu–ṭṭehu*) Apbh., वट्टथ (*vaṭṭatha*) Pais. हसह, हसत (*hasaha, hasata*) in Hc.

वट्टेहि (*vaṭṭehi*); also वट्टाहि (*vaṭṭāhi*) Amg.

Apbh. वट्ट, वट्टहि (*vaṭṭa, vaṭṭahi*), हससु पेच्छसु (*hasasu, pechasu*) Hc. वट्टउ (*vaṭṭau*), Ś. Mg. वट्टदु (*vaṭṭadu*) हसउ, पेच्छउ (*hasau, pechu*) in Hc. — वट्टन्तु, तुवरन्तु–हसन्तु (*vaṭṭantu,–tuvarantu–hasantu*) in Hc.

हसामु, पेच्छामु (*hasāmu, pechhāmu*), follow the analogy of वट्टसु (*vaṭṭasu*), which itself is to be traced to the स्व (*sva*), of the second pers. ātm. of Sanskrit. उ (*u*) and दु (*du*), of the third person are to be similarly explained. The plural of the first person has borrowed its ending from the present; the ह्म (*hma*),

however, although not given by Hemacandra but found in literature, appears to be the true imperative ending.

IV. The S—aorist, which is the only aorist in the Prākrits, shows the same forms for the first and third persons. The strong aorist is given up, with the exception of some very rare forms. The augment is mostly dropped.

अकासि (*akāsi*),—अकार्षम् (*akārṣam*) वुच्छामु (*vuchhāmu*)—Sk. अवात्स्म (*avātsma*)

कासि (*kāsi*) and वयासि (*vayāsi*)—Sk.

आवादीः (*āvādīḥ*)

अकासि (*akāsi*), काहेसी (*kāhesī*), पचारी (*pacārī*) } पुच्छिसुं (*pucchhisuṁ*), करिसुं (*karisuṁ*)—Sk. अकार्षुः (*akārṣuḥ*)
भुवि, अहोसि (*bhuvi, ahosī*), अन्नसि (*annesi*)—Sk. अज्ञासीत् (*ajñāsīt*) }

Amg. समुप्पजित्था (*samuppajitthā*)

But a keen sense of distinction between the forms was already lost and the same form served for the first and third persons, or even for the singular and plural; *e. g.* करिंसु (*kariṁsu*) वाहम् (*vāham*), for first pers. sing. The form वयासी (*vayāsī*), is also used for third singular.[1] The Amg. invariably shows त्था (*tthā*), for third person singular.

V. The future is formed by adding इस्स (*issa*), or इह (*iha*) to the root before adding the terminations.

हसिस्सम्, हसिस्सामि (*hasissam, hasissāmi*), हसीहिमि, हाहीमि (*hasīhimī hohimi*), from भू, एस्सामि (*bhu essāmī*), from इ

करिस्सामो, होहिमो, होस्सामो (*karissāmo, hohimo, hossāmo*), from भू, लभिस्सामो (*bhū, labhissāmo*)

1. PISCHEL, *Grammatik* p. 360.

भविश्शशि (*bhaviśśaśi*), मलीहिशि (*malīhiśi*), Mg. भविस्ससि (*bhavissasi*)

गच्छिहिह, होहीत्था (*gacchihiha hohitthā*), from भू (*bhū*), नइस्सध (*naissadha*), *Karpūramañjarī*, I 33, विसुमरिस्सध (*visumarissadha*), *Śākuntala*

IV

भविस्सदि गच्छिस्सादि (*bhavissadi gacchissadi*)

हसिस्सन्ति, हसिहिइरे, (*hasissanti, hasihiire*),

पराजिणिस्सइ (*parājiṇissai*) Amg. होहिइ (*hohii*), from भू (*bhū*) *Karpūramañjarī* II 39

भविस्सन्ति एस्सन्ति (*bhavissanti–essantim*)

VI. The passive is formed by adding इज्ज (*ijja*), Ś. Mg. ईअ (*īa*) to the root. णिण्हुविज्जन्ति (*ṇiṇhuvijjanti*), Ś. णिण्हुवीअदि (*ṇiṇhuvīadi*) from हु (*hnu*), णज्जइ (*ṇajjai*) from ज्ञा (*jñā*), रुव्वइ (*ruvvai*), रुव्वसु (*ruvvasu*), रुविज्जइ (*ruvijjai*) from रु (*ru*), पुणिज्जे (*puṇijje*) from पू (*pū*), सुमरिज्जइ (*śumarijjai*) from स्मृ (*smṛ*), रम्मइ (*rammai*), रमिज्जइ (*ramijjai*) from रम् (*raṃ*), रोदिअदि (*rodiadi*) from रुद् (*rud*), वुच्चइ (*vuccai*) for वच् (*vac*).
For details see PISCHEL, *Grammatik*, 370-376.

VII. There are causatives, desideratives, intensives and denominatives as in Sanskrit and Pāli.

(*a*) Causal is formed by adding ए (*e*)–Sk. अय् (*ay*), वे (*ve*)–Sk. पय् (*pay*), Ap. अ (*a*), व (*va*) to the strong base of the root.
कारेइ–कारयति (*kārei–kārayati*), पाढेइ–पाठयति (*pāḍhei–pāṭhayati*), ठावेइ–स्थापयति (*ṭhāvei–sthāpayati*), दावेइ (*dāvei*) col. Mar. दावतो–दर्शयति (*dāvato–darśayati*), हसावेइ–हासयति (*hasāvei–hāsayati*), जीववेदु–जीवयतु (*jīvāvedu–jīvayatu*), मोआवेमि–मोचयामि (*moāvemi–mocayāmi*), Abph. पाडइ–पातयति (*pāḍai–pātayati*) उद्दालइ–उद्दालयति (*uddālai–uddālayati*), घडावइ–घटयति (*ghaḍāvai–ghaṭayati*).

(*b*) Desiderative is exactly formed on the Skt. model. जुगुच्छइ–जुगुप्सते (*jugucchai–jugupsate*), Ś बुभुक्खिद–बुभुक्षित (*bubhukkhida–bubhukṣita*), Amg. सुस्सूसइ–शुश्रूषते (*sussūsai–śuśrūṣate*).

(*c*) Intensive is formed as in Skt.
चक्कम्मइ–चाक्रम्यते (*cakkammai–cākramyate*). लालप्पइ (*lālappai*), ढण्ढोलइ (*ḍhaḍḍholai*), चंकम्मिअ (*caṁkammia*).

(*d*) The most common denominative is formed by adding अ (*a*) to nouns immediately. जम्मइ–जन्मति (*jammai–janmati*); दुखामि: (*duḥkhāmi*), सुखामि (*sukhāmi*) from दुख: (*duḥkha*) and सुख (*sukha*); or to the stem with an आ (*ā*). चिलाअदि–चिरायते (*cilāadi–cirāyate*), सुहाअदि–सुखायति (*suhāadi–sukhāyati*). कुरकुराअसि (*kurukurāasi*), खलखलाअसि (*khalakhalāasi*).

VIII. There are participles of as many kinds as in Sanskrit, and infinitives and gerunds in the Prākrits.

(*a*) The present participle ends in अन्त (*anta*) and माण (*māṇa*)—the latter more frequent than the former in the Jaina literature. The passive participle of the present shows the termination मीण (*mīṇa*).
सन्त (*santa*) and असन्त (*asanta*); fem. असन्ती (*asantī*), but असती (*asatī*) also. गच्छन्त (*gacchanta*), हुवन्त (*huvanta*), समाणी (*samāṇī*)–often in *Kappasutta* from अस् (*as*), ओहीरमाणी (*ohīramāṇī*), एज्जमाण (*ejjamāṇa*) from इ (*i*). आगममीण (*āgamamīṇa*), निकाममीण–निष्क्रम्यमाण (*nikāmamīṇa–niṣkramyamāṇa*).

(*b*) The past participle ends in त (*ta*) or न (*na*), Ś. and Mg. of. course द (*da*) and न (*na*). The suffix is added either directly or after इ (*i*).

वुत्थ (*vuttha*), पवुत्थ (*pavuttha*), also उसिअ (*usia*) from वस् (*vas*), Ś. उववसिद (*uvavasida*), तुट्ट (*tuṭṭa*) from त्रुट् (*truṭ*), गहिअ (*gahia*) and गहिय (*gahiya*), Ś. गहिद (*gahida*) from गृह् (*gṛh*), जणिद-जात (*jaṇida-jāta*), असहिअ-असोढ (*asahia-asoḍha*), वीसरिअ (*vīsaria*), वीसरिद (*vīsarida*), विसुमरिद-विस्मृत (*visumarida-vismṛta*).

The suffix न (*na*) is more common than in Sanskrit: खण्ण (*khaṇṇa*), उक्खणिद (*ukkhaṇida*) from खन् (*khan*), दिण्ण (*diṇṇa*) from दा (*dā*); रुण्ण (*ruṇṇa*), ओरुण्ण (*oruṇṇa*) from रुद् (*rud*). This न (*na*) or त (*ta*) assimilates itself with the preceding consonant. उम्मिल्ल (*ummilla*) from मील् (*mīl*), मुक्क (*mukka*) from मुच् (*muc*), रग्ग (*ragga*) from रञ्ज् (*rañj*), सिक्क (*sikka*) from सिच् (*sic*). खुडिअ-क्षुण्ण (*khuḍia-kṣuṇṇa*) छइअ-छन्न (*chaia-channa*) do not show न (*na*) as in Sk. There appear to be active past participles as in Sk. but PISCHEL[1] does not seem to recognise them. पुट्ठवं-स्पृष्टवान् (*puṭṭhavaṁ-spṛṣṭavān*), भणिदवन्तो (*bhaṇidavanto*), किदवन्तो (*kidavanto*) etc. he says, appear in late writers and uncritical editions.

(*c*) Potential participles are formed by adding तव्व (*tavva*) or अणिज्ज (*aṇijja*), अणीय (*aṇīya*) to the stem.

हसिअव्व (*hasiavva*), होयव्व (*hoyavva*), S. Mg. होदव्व (*hodavva*); अणुचिट्ठिदव्व (*aṇucitṭhidavva*), पुच्छिदव्व (*pucchidavva*), सअणिज्ज-शयनीय (*saaṇijja-śayanīya*), दंसणिज्ज (*daṁsaṇijja*), S रक्खणीअ (*rakkhaṇīa*), कज्ज (*kajja*) and कय्य-कार्य (*kayya-kārya*).

(*d*) There is only one infinitive in Prākrits, that in उम् (*um*) or दुम् (*dum*) as the dialect belongs to

1. *Grammatik* p. 387.

Māhārāṣṭrī, Jaina Māhārāṣṭrī, Ardhamāgadhī or to Māgadhī, Śaursenī group.

पुच्छिउम् (*pucchium*), पुच्छिदुम् (*pucchidum*) from प्रच्छ् (*pracch*); धारिउम् (*dhārium*), धारिदुम् (*dhāridum*) from धृ (*dhṛ*); चिट्ठिदुम् (*ciṭṭhidum*), थादुम् (*thādum*), उट्ठिउम् (*uṭṭium*), गच्छिदुम् (*gacchidum*) or गमिदुम् (*gamidum*) show that the suffix is added to the root directly or to the present stem. The Amg. has a peculiar form of the infinitive in त्तए (*ttae*), which is more frequent than that in उम् (*um*). This त्तए (*ttae*) evidently goes back upon Vedic तवै (*tave*), or तवै (*tavai*), more likely the latter. भोत्तए (*bhottae*), वत्थए-भोक्तवे (*vatthae–bhoktave*), वस्तवे (*vastave*). The double त (*ta*) is, according to PISCHEL,[1] probably due to accent, which तवै (*tavai*) bears *e. g.* Paṇini अन्तश्च तवै युगपत् (*antaśca tavai yugapat*), VI 1,200. इत्तए (*ittae*), *Kapp.*[2] therefore goes back upon एंतवै (*étavai*), पायवे-पातवै (*pāyave·pā́tavai*) etc. पुच्छित्तए (*pucchittae*), सइत्तए (*saittae*), एसित्तए (*esittae*), are other forms. The Apbh. has peculiar inf. endings in अण, एव, एप्पि, एप्पिणु (*aṇa, eva, eppi, eppiṇu*) etc. according to grammarians. एच्छण–एठ्ठुं (*ecchaṇa–eṭṭuṁ*), करण–कर्तुम् (*karaṇa–kartum*). This is evidently a noun in अन (*ana*) used infinitively. The Mar. infinitive must go back upon this. A form in एवम् (*evam*) *e. g.* देवम्–दातुं (*devam–dātuṁ*) probably leads to Guj. देवुं करवुं (*devũ, karavũ*). According to PISCHEL this is due to—वने (*vane*) in दावने (*dāvane*) etc.

(*e*) The absolutive suffix is त्ता (*ttā*), ता (*tā*) after nasals, added either to the root direct or to the present stem in the Amg.

1. *Grammatik* p. 392.
2. Ed. JACOBI p. 89

वन्दित्ता (*vandittā*), वसित्ता (*vasittā*), गन्ता (*gantā*), as also अणुगच्छित्ता (*aṇugacchittā*), भवित्ता (*bhavittā*), जिणित्ता (*jiṇittā*), पासित्ता (*pāsittā*) from पश् (*paś*), चत्ता–त्यक्त्वा (*cattā–tyaktvā*).

Besides this, the Amg. has an absolutive in त्ताणम् (*ttāṇam*), Vedic त्वानम् (*tvānam*), पासित्ताणम् (*pāsittāṇam*), चिट्टित्ताणम् (*ciṭṭittāṇam*). Forms in तूण (*tūṇa*), ऊण (*ūṇa*), दूण (*dūṇa*) are seen in Amg. in verses. These, however, are more regular in Māhārāṣtrī, Jain M. and Paiśācī जेऊण (*jeūṇa*), जिणिऊण (*jiṇiūṇa*) from जि (*ji*), पाऊण (*pāūṇa*) from पा (*pā*), लद्धूण (*laddhūṇa*) from लभ् (*labh*), मोत्तूण (*mottūṇa*) from मुच् (*muc*), भेत्तूण (*bhettūṇa*) from भिद् (*bhid*), काऊण (*kāūṇa*) from कृ (*kṛ*), गहिऊण (*gahiūṇa*), घेत्तूण (*ghettūṇa*) from गृह् (*gṛh*).

The तूण (*tūṇa*), दूण (*dūṇa*), ऊण (*ūṇa*) forms are to be traced to the pre—Pāṇinian[1] त्वानम् (*tvānam*), त्वीनम् (*tvīnam*); compare लद्धूण (*laddhūṇa*) with लब्ध्वान (*labdhvāna*). : A. च्चा (*ccā*), च्चाणं (*ccāṇaṁ*) also is found in Amg. Hemcandra[2] traces it to त्वा (*tvā*); *e. g.* भोच्चा (*bhoccā*) from भुक्त्वा (*bhuktvā*), णच्चा (*ṇaccā*) from ज्ञात्वा (*jñātvā*). विज्जं (*vijjaṁ*) from विद्वान् (*vidvān*) supports his derivation. It could not be traced to त्या (*tyā*), which is only a metrically lengthened form of the alternative suffix त्य (*tya*).

होच्चा-भूत्वा (*hoccā–bhūtvā*), अपिच्चा-अपीत्वा (*apiccā–apītvā*), किच्चा–कृत्वा (*kiccā–kṛtvā*) सोच्चा–श्रुत्वा (*soccā–śṛtvā*) च्च–दत्वा (*cca–datvā*) etc.

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1. GUNE, *Dia Altindischen Absolutiva* p. 12.
2. II. 15.

The Apbh. forms in प्पि (*ppi*), प्पिणु (*ppiṇu*) are to be traced to Vedic forms in त्वी (*tvī*) and त्वीनम् (*tvīnam*), जेप्पि (*jeppi*) from जि (*ji*), देप्पिणु (*deppiṇu*), from दय् (*day*), दक्खिवि (*dakkhivi*) from दृश् (*dṛś*). These are also used as infinitives. Absolutives in इअ (*ia*), उअ (*ua*), are rare. Ś shows गदुअ (*gadua*), M पडिअ (*paḍia*), पेक्खिअ (*pekkhia*). उअ (*ua*) goes back upon त्वा (*tvā*) and इअ (*ia*) upon य, त्य (*ya, tya*), निक्खमिअ–निष्क्रम्य (*nikkhamia–niṣkramya*), ओदरिअ–अवतीर्य (*odaria–avatīrya*), आरुहिअ–आरुह्य (*āruhia–āruhya*).

46. DESĪ WORDS:—The Prākrit vocabulary mostly contains words that have phonetically developed from the Sanskrit. These are called by grammarians the तद्भव (*tadbhava*) words. There are, besides, many borrowed words which are called तत्समs (*tatsamas*). The तत्समs (*tatsamas*) have a tendency to increase in proportion to the influence of Sanskrit on any language. The modern vernaculars, especially on their literary side, are greatly influenced by Sanskrit; *e. g.* the Bengālī language. Its form is so changed owing to this influence, that had it not been for inflection, one would have taken it to be a corrupt form of Sanskrit.

But besides the तद्भव (*tadbhava*) and तत्सम (*tatsama*) words, the Prākrits show an amount of others that are called देश्य (*deśya*) or देशी (*deśī*), *i. e.* country words. Hamacandra has collected such words in his *Desīnāmamālā*. Some of these देशी (*deśī*) words were already collected by Dhanapāla in his *Pāialacchī nāmamālā*. Although it could be shown, that some of these words are real तद्भवs (*tadbhavas*), in the main they are words of other than Sanskrit extraction.

Among words wrongly put down by Hemacandra as Desīs are:—

अक्कंद (*akkaṁda*) I 15—आक्रन्दः (*ākrandaḥ*), अम्बिर (*ambira*) I 15–by स्वरभक्ति (*svarabhakti*) from आम्र (*āmra*), अग्गवेग

(*aggavega*) 129–अग्रवेगः (*agravegaḥ*), घरं (*gharaṁ*) I 53–by metathesis from गृह (*gṛha*), अवडो (*avaḍo*) I 53–अवटः (*avaṭaḥ*), Vedic अवतः (*avataḥ*), अइराणी (*airāṇī*) I 58–आधिराज्ञी (*adhirājñī*), उल्लूढ (*ullūḍha*) I 100–उद् (*ud*) and रूढ (*rūḍha*), ओज्जल्ल (*ojjalla*) I 154–from ओजस् (*ojas*) and the Pr. termination अल्ल (*alla*), ओसित्तं (*osittaṁ*) I 158–अवसिक्तम् (*avasiktam*), कन्तू (*kantū*) II 1–from कम् (*kam*), कट्टारी (*kaṭṭārī*) II 4–from कृत् (*kṛt*), कद्दमिओ (*kaddamio*) II 15–from कर्दम (*kardama*), कणोवअं (*kaṇovaaṁ*) II 17–traceable to कवोष्णं (*kavoṣṇaṁ*), कडिखंबो (*kaḍikhaṁbo*) II 17–from कटि (*kaṭi*) and स्तम्भ (*stambha*), कारिम (*kārima*) II 26–from कृ (*kṛ*) with termination इम (*ima*), कुडिआ (*kuḍiā*), कुडीरं (*kuḍīraṁ*) II 24–related to कुटी (*kuṭī*), कुक्खी (*kukkhī*) II 34–कुक्षि (*kukṣi*), कोडिल्लो (*koḍillo*) II 43–from कुटिल (*kuṭila*), खड्डा (*khaḍḍā*) II 66–from खन् (*khan*), खज्जोअ (*khajjoa*) II 69–from खद्योत (*khadyota*), खंधयट्ट (*khaṁdhayaṭṭa*) II 71–स्कन्धयष्टिः (*skandhayaṣṭiḥ*), खुंपा (*khuṁpā*) Mar. खोंपटी (*khōpaṭī*) II 63–क्षुंप (*kṣumpa*), गणेत्ती (*gaṇettī*) II 81–from गण् (*gaṇ*), गामेणी (*gāmeṇī*) II 84–from ग्राम (*grāma*) and एणी (*eṇī*), गयणरई (*gayaṇaraī*) II 88–from गगन (*gagana*) and रतिः (*ratiḥ*), गोवी (*govī*) II 96–गोपी (*gopī*) etc.

The Deśī words collected by Dhanapāla and Hemacandra deserve a critical study, as they would throw great light on the vocabulary not only of the Prākrits, but also of the present vernaculars and the non-Indo-Aryan element in them. Some of the words are clearly Dravidian.

47. THE PERIOD OF THE PRĀKRITS:—The period of these literary Prākrits and the underlying dialects has its two limits, the upper one in the Pāli and inscriptional Prākrits, and the lower one in the modern vernaculars. We have seen that the period of the inscriptional dialects reaches well-nigh into the first century of the Christian era. That gives them a period of some eight centuries from before Buddha's days. The literary Prākrits make their appearance with

the *Bṛhatkathā* circa first century A. C. if not earlier. Vararuci's grammar, the *Prākṛta-prakāśa*, presupposes the previous existence of the Prākrits at least in a spoken form. It is not possible to say if some Prākrit literature as we understand it, existed then and to what extent. Vararuci belongs to the first century[1] B. C. at least, even if we do not regard him, with COWELL, MAX MULLER, PISCHEL[2] and KONOW, to be identical with the Vārttikakāra Kātyāyana as tradition would have it. So that we shall have to date the beginning of the Prākrits from that epoch. The lower limit would be about the eleventh century A. C. after which the modern vernaculars begin to appear on inscriptions or in literature. The period of the Prākrits, then, would roughly fall between the first and the tenth centuries of the Christian era. The last Sanskrit line on an inscription[3] of the Cālukya king Vijayāditya Satyāśraya at Bādāmi, Śake 621 *i, e.* A. C. 699 or nearly the beginning of the eighth century, clearly indicates the existence of Prākrit in some form at that time. The line runs thus: अतः परं प्राकृतभाषया पद्यान्येतानि दत्तानि (*ataḥ paraṁ prākṛtabhāṣayā padyānyetāni dattāni*). Unfortunately for us, the further lines which would have shown us the actual form of the Prākrit, are obliterated. So much is, however, certain, that a Prākrit in some form was used on inscriptions between the close and the beginning of the 7th and the 8th centuries respectively.

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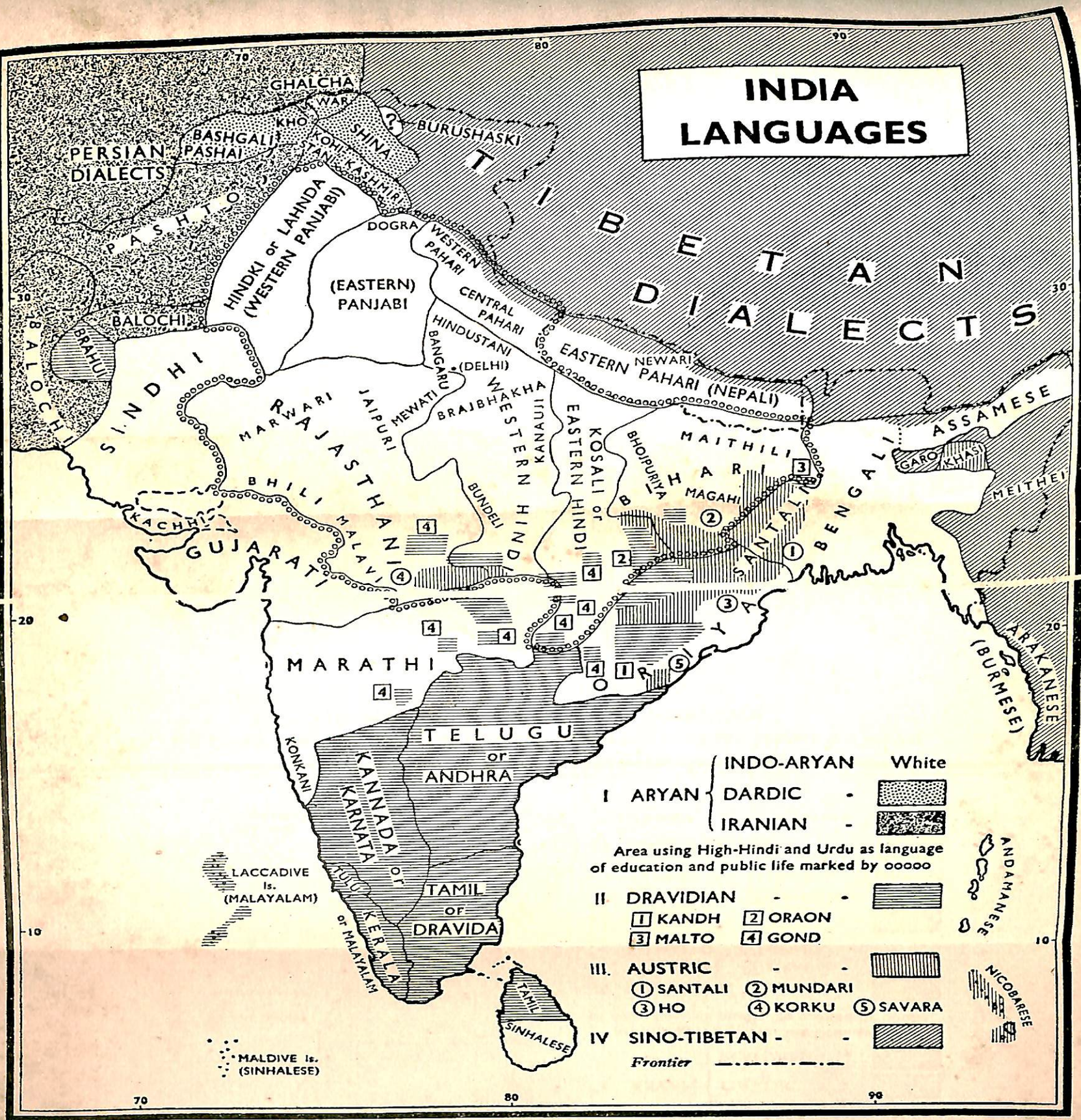
1. HOERNLE, *Gaudian Languages* p. XVIII,
2. *op. cit.* 34.
3. *Indian Antiquary* X 10, 60.



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II

THE MODERN INDIAN LANGUAGES

48. THE PRINCIPAL ĀRYAN VERNACULARS OF THE PRESENT DAY :—Corresponding to the Prākrits that we have spoken of, *viz.* the Māhārāṣṭrī, the Śaurasenī, the Ardhamāgadhī, the Māgadhī and the Paiśacī, we have vernaculars spoken in different parts of India today. Thus the Marāṭhī is derived from Māhārāṣṭra Apabhraṁśa. The Gurajarātī, the Rājasthānī, a group of several dialects, the Panjābī and the Western Hindī, also a group of closely allied dialects, are to be traced to Śaurasena Apabhraṁśa; the Eastern Hindī, a group of dialects, to the Ardhamāgadha Apabhraṁśa, and the Oriyā, Bengālī, Bihārī, a group, and the Assamese to the Māgadhī Apabhraṁśa proper. The Sindhī from the Vrācaḍa and the Lahndā Kâśmīrī are probably derived from the Paiśāca Apabhraṁśa. Besides these there are the Himālayan dialects, Garhwālī, Kumaonī and Nepālī, called by GRIERSON the Pahārī languages, by HOERNLE, the Northern Gaudian. Dr. BHANDARKAR appears to include them among dialects of the Hindī.

The question whether the Marāṭhī is to be derived from the Pāli[1] need not detain us here. The Phonology of the Marāṭhī has very close resemblance with the M. Apabhraṁśa or Dāksiṇātya as it is called by later grammarians, *e. g.* Ap. कुम्भआरो (*kumbhaāro*), Mar. कुम्भार (*kumbhāra*); Ap. कअलअं (*kaalaaṁ*), Mar. केळें (*keḷē*); Ap. कअ, गअ (*kaa, gaa*), Mar. के (*ke*) (*lē*), गे (*ge*) (*lē*); etc. No modern vernacular could today be directly traced to the Pāli, much less to Sanskrit.

1. FRANKFURTER, *Handbuch des Pāli, Introduction.* This view is also held by others.

49. THE TOPOGRAPHY OF THE VERNACULARS AND THEIR SUB-DIALECTS:—It is not difficult to define geographically the modern vernaculars.

(*a*) The Marāthī is bounded on the south by the district of Canara, on the south-east and east by Telingaṇa (Hyderabad Deccan) and Chotanagpur, and on the north by the Vindhya and Sātpurā ranges. Various sub-dialects are recognised by scholars, especially by HOERNLE[1], who speaks of the Koṅkaṇī and Dakhaṇi and following BEAMES adds one more, that spoken in and about Kolhapur and Ratnāgiri. But these have not yet developed any considerable differences in phonology and inflection, to be classed as separate dialects. If at all, there is a difference only in pronunciation, the Koṅkaṇī showing a tendency towards wholesale nasalising. If they are recognised as dialects, we shall have to recognise various others, like the Kārvārī. the Goanese, the Mālavaṇī, the Sāvantvādi, the Chitpāvanī, the Sālsettī. Dr. BHANDARKAR[2] mentions these and adds the Khāndeśī to the list; but he too agrees that these differ from the main language in unimportant particulars only. To add to these, there is the Poona or central dialect, which is becoming the Κοινή (*Koiné*) of Mahārāṣṭra, and the Berārī. The difference is mostly seen in the vocabulary, for in the Koṅkaṇī there is a strong mixture of Kanarese words, in the Berārī of Bhīlī and slightly also of Telugu words, and in the Poona Marāṭhī of Persian words. In phonology too there is a slight difference, as already remarked; the Berārī, for instance, has a too open and rough pronunciation. BHANDARKAR also mentions Khāndeśī, which GRIERSON[3] puts down as a mongrel Gujarātī with a

1. *Gaudian Languages*, p. III.

2. *Philological Lectures*, p. 120.

3. *The Languages of India*, p. 90. *Linguistic Survey* Vol. IX Part III. p. 1 & 2.

strong admixture of Marāṭhī and Bhīli words. It is, however, to be regarded as a mixed dialect, that develops on the borderland of two distinctly different languages of a large group. This is clearly shown by words and forms like माणुस ले (*māṇusa-le*), दोन (*dona*), बापले (*bāpale*), धाकला (*dhākalā*), and दिदी (*didī*), पडनी (*paḍanī*), त्याले (*tyāle*), राजीखुषीथी (*rajīkhuṣīthī*), मिळस (*miḷasa*), मरस (*marasa*), देखा (*dekhā*); अंगमा (*aṁgamā*), मोठा भाऊ (*moṭhā bhāū*), आर्जव करी लागस (*ārjava karī lāgasa*), मना पासशे (*manā pāsaśe*). मेजवानी करस (*mejavānī karasa*). The Gujarātī element becomes stronger in the western parts of Khandesh and the Berāri in the easternmost part.

(*b*) The Gujarātī is bounded on the south and east by the Marāṭhī and Khāndeśī speaking districts, on the north by Mārwār and central India states speaking Rājasthānī and Western Hindī, and on the west by the Kacchī and the sea. The Gujarātī does not show any remarkable dialectal variations. Gujarāt is a fertile country and has therefore attracted immigrants from the most ancient times. We hear in the *Mahābhārata* of a Yādava immigration into Dvārakā; this must have happened about 1400 B.C. There were the Greek, the Mauryan and the Scythian invasions and settlements a few centuries before and after the beginning of the Christian era. In historical times, we have the Gurjarās[1] coming in through the Panjab, Rajputana and Malva into Gujarat to which they gave their name. The old name was Lāṭa and the language was known as Lāṭī.[2] Besides these, there are the Arabs, the Pārsīs, and the Turks who found in Gujarat a welcome home. The Gujarātī language is thus a composite language having elements of the लाटी (*lāṭī*), Prākrit of Daṇḍin the Śaurasenī Apabhraṁśa, and even foreign elements that it gathered from the language of the heterogeneous immigrants.

1. *Linguistic Survey* Vol IX, Part II p. 324.
2. *Kāvyādarśa* I 35

(*c*) The Gujarātī with the Mārwārī have sprung from one common dialect, called 'Old Western Rājasthānī, by TESSITORI[1]. GRIERSON in the *Linguistic Survey* has classed all the dialects of Rajputanā together under the name Rājasthānī, an invented name[2] as he himself acknowledges. The dialects are Mārwārī, Jaipūrī, Mevātī, and Mālvī and one or two minor ones. TESSITORI, however, thinks that the Mārwārī is more closely connected with the Gujarātī than with any of the others. He therefore classes it with the latter language and calls them the two developed forms of Old Western Rājasthānī; and leaves the others to be classed either under an unproved Old Eastern Rājasthānī or Old Western Hindī.

The Rajputāna dialects are surrounded on the west by Sindhī and Lahndā, on the north by Lahndā, Panjābī, on the east by Braj, Bundelī (dialects of Western Hindī) and on the south by Marāṭhī, Khāndeśī and Gujarātī.

(*d*) The Panjābī is the language spoken in modern Panjab, excepting the westernmost part along the banks of the Indus which is the place of the Lahndā. This latter, under the name of Multānī was classed amongst the dialects of the Panjābī by HOERNLE and others, but it has proved to be an independent dialect, allied more with the Sindhī than with the Panjābī. The Panjābī has two well marked dialects, the standard language of Amritsar and the Mālvaī of the south eastern Panjab.

(*e*) The Western Hindī is the name of a group of various dialects such as the Hindustānī, the Bāngarū, the Braj Bhākhā, the Kanaujī and Bundelī. Roughly speaking, part of eastern Panjab, western half of the United Provinces, Bundelkhand, and part of Scindia's territory

1. *Ind. Ant.* 43, p. 21.
2. *Ling. Survey* IX Part II p. 1.

touching the United Provinces and Bundelkhand is the region of these dialects. The Bundelī runs also into the Central Provinces up to Chindwada—excluding Jubbalpore. The works of Sūradāsa, the well-known poet, the *Satsai* of Bihārilāla are written in the Braj dialect. The Braj and the Kanaujī are not really very well distinguishable. The home of the Braj Bhākhā is naturally Mathura and the region round about it, reaching north to Bulandshahr in the west and Bareilley in the east, and extends southwards quite into the upper Gwalior state. The Western Hindī group has developed from the Śaurasena Apabhraṁśa, the most Sanskritised of all Prākrits, and what is also important, is situated in the ancient Madhya deśa, the cradle of Hindu Civilization.

(*f*) The Eastern Hindī is a group of dialects spoken over the eastern part of the United provinces, the central Provinces excluding Nagpur and its east, and west Chota Nagpur. The dialects are (1) Avadhī or Pūrbī as it is popularly called and spoken in the province of Audh as far south as Allahabad and Benares (2) the Bāghelī spoken in Rewah, and Goṇḍavana, and (3) the Chattisgarhī spoken in part of Chota Nagpur and Bilāspur and Raipur districts of the Central Provinces.

Older scholars, including BHANDARKAR, did not distinguish between the two great groups, but called them Hindī only, giving Braj, Pūrbī etc. as dialects of it. But later research has proved that what is popularly called Hindī is really divisible into two groups, which have sometimes less in common with each other than with Panjābī and Bihārī respectively. This is also in consonance with the division of the Prākrits, which are the parents of our modern vernaculars. A few examples will suffice to prove what is said above.

In the following comparison we shall take the Braj Bhāṣā to represent Western Hindī, and the Avadhī to represent Eastern Hindī. The pronunciation and vocabulary are less important in this connection than grammar.

(1) A very marked contrast is seen in the case suffixes or rather postpositions.

The Braj has कूं, कौं, कैं, कें (*kũ, kaũ, kaĩ, kẽ*) for acc. and dat., whereas the Avadhī has का (*kā*) or कां (*kã*). Braj. छोरेकूं (*chorekũ*) *to a son*, Avadhī छोराका (*chorākā*). Braj has नें (*nẽ*) or नैं (*naĩ*) showing agency, Avadhī has से (*se*). Braj has for gen. के (*ke*) and की (*kī*), Avadhī has also केर् (*ker*), कर् (*kar*) like the Bihārī and Bengālī. The Panjābī agrees with the Braj in having a नै (*nai*) for agent. For the gen. it has a different suffix दा (*dā*).

The Braj shows ए (*e*) in the gen. form of the pronouns of the first and second persons, whereas Avadhī shows ओ (*o*). Braj मेरो (*mero*), तेरो (*tero*), Avadhī मोर (*mora*). Here too there is agreement between the Braj and Panjābī on the one hand and the Avadhī and Bengālī on the other. *e. g.* Panj. मेरा (*merā*), तेरा (*terā*); Beng. मोर (*mora*), तोर (*tora*). The same distinction is observed in the case of the relative and demonstrative pronouns, only with the tables turned: *i. e.* here the Braj and Panjābī have ओ (*o*), and the Avadhī and Bengāli have ए (*e*). *e. g.* Braj, Panj. जो (*jo*) or जौ (*jau*), सो (*so*); Avadhī and Beng. जे (*je*), से (*se*).

(2) This agreement of the Western Hindī with the Panjābī and others and of the Eastern Hindī with the Bengālī and others, is seen more markedly in conjugation.

The Braj has infinitive in अन्, नौ (*an, nau*); the Avadhī in ब् (*b*). The Panjābī has infinitive in ण्, णा (*ṇ, ṇā*); the Bengālī in this case does not agree with the Avadhī; but the Maithilī, a dialect of the Bihārī of the eastern group, does. *e. g.* देखब (*dekhava*) to see.

As regards the past tense, the Eastern Hindī agrees with the Western Hindī only in the form of the base, *i. e.* the past. part., but it takes personal terminations like languages of the east. Here it does not agree with the eastern

languages in having a ल्ल (*l*) for the past form. *e. g.* Avadhī मार्यौं (*māryaũ*), Bihārī मारलों (*māralō*), Braj मारा (*mārā*). In the furture, there is a marked agreement with the eastern languages. *e. g.* Avadhī देखब (*dekhava*), करब (*karaba*), Beng. देखब (*dekhaba*), करिब (*kariba*); but Braj करिहौं (*karihaũ*) (where इह (*iha*) represents Sk. इष्य् (*iṣya*), मारिहौं (*mārihaũ*). The Panjābī like Hindustānī, forms future with the help of a suffix गा (*gā*), करूंगा (*karūgā*), देखूंगा (*dekhūgā*). The Braj. however, also shows a form देखिहैं (*dekhihaī*) where the old future termination is still retained.

These few broad points are sufficient to show that the Western and Eastern Hindī must be classed as two distinct groups, having affinities and differences with each other, as they have with other groups.

(*g*) The Oṛiyâ is spoken in the modern Orissa. It is also called Utkalī or Oḍrī from the ancient name of the province. It is also the language of south Midnapore, southernmost corner of Bihar, a little portion of Chota Nagpur, Sambalpore, and the upper part of the Ganjam district. It has Bengālī and Bihārī on the north, Eastern Hindī on the west, the Telugu on the south and the sea on the east. It shows no dialectic variations worth mentioning.

(*h*) The Bengālī or Baṅgabhāṣā is the language of the lower Bengal province. But it is also spoken in a part of Chota Nagpur and the Assam valley. The Bengālī language shows two clear-cut dialects in the present day, the Sanskrit-ridden Bengālī of the educated classes and the genuine vernacular of the masses. About the former the *Linguistic Survey*[1] writes, 'each decade it is becoming more a slave of Sanskrit than before'. The tendency is to discourage genuine Bengālī words in favour of highly

1. Vol. V part p. 16.

Sanskritized expressions. There is, however, another and perhaps a better classification into (1) the central dialect of Calcutta and the region round about it, (2) the eastern dialects of Rangpur, Mymensingh, Dacca, Barisal, and (3) western dialect of Nadia and the twenty-four Parganas. There are sub-dialects of these with popular names like Khaṛiāṭhār, Koch, Chākmā etc.

(*i*) The Bihārī is the name of a group of dialects spoken in Bihar. It has Eastern Hindī to its west, Eastern Hindī, Oṛiyā and Bengālī to its south and the Bengālī to its east. On the north it is bounded by Himālayan dialects Oudh and Fyzabad are just outside its limits on the west, but Benares and Mirzapur are within. It is spoken also in part of Chota Nagpur. There are three main dialects, the Maithilī, Māghaī or Māgadhī and Bhojapurī. Of these Maithilī is the most important; it is spoken in Muzfarpur, Darbhanga, Camparan, Purnea and upper part of Bhāgalpur district. Its northern boundary is the lower Himalaya and southern roughly the river Ganges. Māgadhī is the dialect of the heart of old Bihar, being spoken in Patna, Gaya, and the Hazaribag districts. The Bhojapurī is the most westerly of the Biharī dialects. Gorakhpur, Gazipur, Benares, Mirzapur, Chapra are the big towns in and round which it is spoken, besides also in some part of Chota Nagpur. There are sub-dialects[1] of these principal ones, with which we are not much concerned.

(*k*) The Assamese language belongs to the Indg. vernaculars and is spoken in the northernmost portion of Assam, in the valley of the Brahmaputrā river before it enters Bengal proper. There are two principal dialects, one in the east round Sivasāgar and other in the west.

(*l*) The Sindhī is spoken in the Sindh province, along both the banks of the lower Indus. It has to its west Balu-

1. Cf. GRIERSON, *Seven Grammars of the Bihārī Language*, 1883.

chistan, to its north the district of Multan, to its east the Mārwāri speaking province of Rajputana and to the south the sea. Between it and the Gujarātī, there is the Kacchī, which is to be regarded as a mixed borderland dialect, partaking of the features of both. The Sindhī has borrowed freely from the Persian, as the population that speaks it is to a great extent Mussalmān. It has three main dialects, the Siraikī, the Lārī and the Tharelī. The first is spoken in upper Sind, the second in lower Sind and the last in the desert of Thar. The Sindhī is the outcome of the Vrācada Apabhraṁśa, as the Lahndā, which is closely allied to it, of the Paiśācī*.

(*m*) The Lahndā is a language spoken in eastern Panjab along the banks of the upper Indus. It was called Multānī by other scholars and was classed amongst the dialects of the Panjābī. But this view has now been given up. The land of this language is where the ancient Kekayās had settled. The preservation of intervocalic त् (*t*), which in other dialects became द् (*d*) and was afterwards elided, is a special characteristic of the Paiśācī and it is seen also in the Lahndā,[1] and partly in the Panjābī.

The dialects of the Lahndā are many. Pothwārī, Chibhālī, Tināolī, Ubhechī, Thallī, Khetrānī are the names of some of them. They have yet to be properly studied. Lahndā with the Sindhī, belongs according to GRIERSON* to the Outer Circle.[1]

(*n*) Then there is the Kāśmīrī, spoken in Kâśmere a Paiśācī dialect[2] possessing considerable literature. It has

* It is written in a script known as Arabi Sindhi which is a compromise between the Nāgari and the Urdu scripts. It has very large stock of Persian words though Aryan words are also found in plenty. Ed.

1. GRIERSON, *Languages of India*, p. 66.

*There are good authorities in whose opinion the Sindhi as a dialect is the nearest akin to Sanskrit, among modern Indian languages. Ed.

1. *Languages of India* p. 65.
2. GRIERSON, *Manual of the Kāśmīrī Language*, 1, 7.

shared the fate of Hindī, showing two dialects, a Hindu dialect full of Sanskrit loan words, and a Mohamedan dialect showing Persian and Arabic words in abundance.

(*o*) Lastly there are the Garhwālī, the Kumaonī and the Nepālī and other Himālayan languages, called by GRIERSON the Pahārī languages and by HOERNLE[1] the Northern Gaudian. They are spoken in the lower Himalayan ranges from the Sutlej in the west to the Gogri in the east. Those who speak the western form of that group are called Khaśas, the descendants of the Khaśas figuring in the epic as foreigners together with Śabaras, Śakas and Yavanās. These languages have yet to be investigated.

50. THE AFFINITIES AND PROPOSED GROUPS OF VERNACULARS:—We have thus followed the development of the principal Prākrits or Apabhraṁśas and given a general survey of the languages derived from them. Some of these show closer resemblances with one another than with others. It is on the strength of such resemblances that European scholars have distributed them into groups. Thus HOERNLE[2] speaks of an Eastern Gaudian composed of Eastern Hindī, Bengālī and Oṛiyā and a Western Gaudian composed of Western Hindī, Panjābī, Gujarātī and Sindhī; to these he adds a Northern Gaudian consisting of Garhwālī, Kumaonī and Nepālī, and a Southern Gaudian consisting of the Marāṭhī only. It is to be noted that HOERNLE does not recognise Bihārī as a distinct group at all. He classes its dialects, *e. g.* Bhojapurī,[3] amongst the dialects of the Eastern Hindī.

GRIERSON, of the *Linguistic Survey* fame, has planned his whole work on a different classification. He thus speaks of a central group formed by Western Hindī, Panjābī, Rājasthānī and Gujarātī, the Himālayan languages, a mediate group

1. *Gaudian Languages* p. III.
2. *Op Cit* pp. XIV to XVII, especially the last.
3. HOERNLE, *op cit.* XXXVI.

composed of Eastern Hindī only, an eastern group consisting of the Bihārī, Oṛiyā, Bengālī and Assamese languages, a southern group of the Marāṭhī only and a north-western group of the Sindhī, the Lahndā and the Kāshmīrī.

GRIERSON also refers to languages of the Outer Circle. By this he means the Lahndā, the Sindhī, the Marāṭhī, the Oṛiyā, the Bengālī, the Bihārī and the Assamese. These show certain characteristics in common, *e. g.* the ल (*l*) of the past participle and the past tense. *e. g.* Mar. उठिला (*uṭhilā*), Oṛiya उठिला (*uṭhilā*), Beng. उठिल (*uṭhila*), Bihārī उठल् (*uṭhal*), Assamese उठिल् (*uṭhil*).

But in this respect it is always well to point out similarities and differences and not to be led into grouping and regrouping, which after all may be largely subjective and liable to be upset so soon as other facts come to light. If Marāṭhī agrees with the languages of the so-called Outer Circle, or eastern group in certain points, *e. g.* the ल (*la*) above spoken of, the आ (*ā*) of the strong masc. nouns, घोडा (*ghoḍā*), भला (*bhalā*), E. H. घोरा (*ghorā*), भला (*bhalā*), in pronunciation generally the Marāṭhī also agrees with languages of the central group. The pronunciation of the palatals in Mar. is similar to that in Kāśmīrī, Gujarātī and Rājasthānī of the central or western group. The distinction between व् (*v*) and ब् (*b*) is observed in the Marāṭhī, Gujarātī, Panjābī, and Sindhī, but not in the others. In possessing a ळ् (*ḷ*), Marāṭhī and Oṛiyā agree with Rājasthānī, Gujarātī and Panjābī only. Even inside the Marāṭhī itself there are dialects which show so-called eastern features as against others which show western peculiarities. Thus the Koṅkaṇī nom. sing. of strong masc. nouns ends in ओ (*o*), *e. g.* गोरो (*goro*), चेड्यो (*ceḍyo*), and is thus in agreement with Gujarātī, Rājasthānī and others of the western or central group, as against the standard which shows आ (*ā*), *e. g.* गोरा (*gorā*), मुलगा (*mulagā*), and is in keeping with the eastern dialects.

Again if the Marāṭhī agrees with the eastern vernaculars in point of the nom. sing. in आ (*ā*), it agrees with the western or rather central ones in respect of the nom. pl. Mar. घोडा (*ghoḍā*), E. H. घोरा (*ghorā*), a horse, but Mar. घोडे (*ghoḍe*), W. H. बेटे (*bete*), लरके (*larake*); as against E. H. लरका (*larakā*), or लरिका (*larikā*), sons; Guj. दीकरा (*dīkarā*), nom. pl. agrees with E. H. In the nom. sing. of relative and demostrative pronouns, the Marāṭhī agrees with Western Hindī in having an ओ (*o*), ending. *e. g.* जो (*jo*), तो (*to*), (also को (-ण) (*ko-(ṇa)*); Braj जौ (*jau*), सो (*so*), but E. H. जे (*je*), ते (*te*); Beng. जे (*je*), ए (*e*); Guj. agrees with the east, *e. g.* जे (*je*) and ते (*te*). The Marāṭhī agrees with Western Hindī in having a न (नें) *na* (*nē*), infinitive; *e. g.* करणें (*karaṇē*), देणें (*deṇē*); Braj देनउं (*denaũ*), लेनउं (*lenaũ*); but the Chattisgarhī also shows this न (*na*), infinitive, *e. g.* करन् (*karan*), जान् (*jān*), to do, to go. The Marāṭhī also shows infinitive in व (*va*), like the Gujarātī; old Mar. करावें (-याला) (*karāvē*) (-*yālā*), modern Mar. करावयाला (*karāvayālā*) Guj. करवुं (*karavũ*).

The above will have made it sufficiently clear that the distribution of the vernaculars into allied groups is not as easy as it would seem at first sight. So many conflicting points of view are apt to crop up, that it will always be difficult to select some only as of first importance and neglect the others. It is none-the-less the linguist's duty to point out all the resemblances and differences. Every such attempt, therefore, should be welcomed as a step forward in the proper understanding and study of the mordern vernaculars.

51. PHONOLOGY OF THE MODERN VERNACULRS:—The modern vernaculars possess all the vowels except ऋ (*ṛ*), and ऌ (*ḷ*). Some of them have a short ए (*e*), and ओ (*o*), besides the diphthongal ए (*e*), and ओ (*o*). According to HOERNLE, the Eastern Hindī has fourteen or fifteen vowels.

We have already met the short simple ए (e), and ओ (*o*), before conjuncts in the Prākrits. We shall only note changes in the vowels in the principal vernaculars.

a. CHANGES IN VOWELS:—अ (*a*), before conjunct is lengthened and the conjunct simplified. This process had already begun in the Prākrts. But some times the conjunct remains. *e. g.* Mar. कातडें (*kātaḍē*), Pr. कत्ति (*katti*), कृत्तिः (*kṛttiḥ*); कान्हा (*kānhā*), कण्हो (*kaṇho*) Sk. कृष्णः (*kṛṣṇaḥ*).

अ (*a*), is changed to इ (*i*), apparently owing to no cause. Avadhī छिनु (*chinu*), Coll Mar. खिण *khiṇa*–Sk. क्षण (*kṣaṇa*).

इ (*i*), and उ (*u*), are changed to ए (*e*), and ओ (*o*), before conjuncts. This was already observed in the Prākrits; but in many of the vernaculars it has become universal. *e. g.* Mar. शेंदूर (*śeṁdūra*), H. सेंदूर (*seṁdūra*), Prākrit सिंदूरो (*siṁdūro*), or सेन्दूरो (*sendūro*), Sk. सिन्दूरः (*sindūraḥ*); पोथी (*pothī*) Mar. Guj. also पोथा (*pothā*), in H. and Panj., Prākrit पोत्थअम् (*potthaam*), Sk. पुस्तकम् (*pustakam*), Mar. तोंड (*toṁḍa*), Prākrit तुण्डम्, तोण्डम् (*tuṇḍam, toṇḍam*), Sk. तुण्डम् (*tuṇḍam*), Mar. घोस (*ghosa*), Pr. गोच्छ (*goccha*), Sk. गुच्छ (*guccha*). It is to be observed however that some vernaculars prefer to keep इ (*i*) and उ (*u*), *e.g.* Guj. and Beng. सिंदूर (*siṁdūra*), Sindhi सिंधुरु (*siṁdhuru*), Beng. पुधी–पुस्तकं (*pudhī-pustakaṁ*), कुखि–कुक्षि (*kukhi–kukṣi*) O. मुकुळ (*mukuḷa*)–Pr. मोक्क–मुक्त (*mokka-mukta*). The Prākrit ए (*e*), आ (*o*), before conjuncts are short; wherein the vernaculars the conjuncts are simplified they become long.

इ (*i*) and उ (*u*) often become ए (*e*) ओ (*o*), although originally there is no coniunct in the word. Mar. मेहुण (*mehuṇa*)–Pr. मिहुण (*mihuṇa*)–Sk. मिथुन (*mithuna*), Guj. मोहडुं (*mohaḍũ*) Pr. मुह (*muha*)–Sk. मुख (*mukha*); vul. Mar. भोय (*bhoya*)–standard Mar. भुई (*bhuī*); Hindī नेवता (*nevatā*)–Pr. निमन्त (*nimanta* Sk. निमन्त्र (*nimantra*).

ई (*ī*) and ऊ (*ū*) are often shortened when the accent falls on the last syllable. Mar. किडा (*kiḍā*)–Pr. कीडओ (*kīḍao*)–

Sk. कीटकः (*kīṭakaḥ*):, Guj. कुवो (*kuvo*)–Pr. कूवओ (*kūvao*)–Sk. कूपकः (*kūpakaḥ*):, Hindī कीला (*kīlā*), Mai. किला (*kilā*)–Pr. कीलओ (*kīlao*)–Sk. कीलकः (*kīlakaḥ*). This is best seen in Mar. inflection, where, if the accent is thrown forward, the preceding long vowel becomes short. Mar. रीत–रितीचें (*rīta–ritīcē*), मूळ–मुळास (*mūḷa–muḷāsa*), बीळ–बिळास (*biḷa–bilāsa*).

ई (*ī*) and ऊ (*ū*) also become ए (*e*), ओ (*o*). Mar. तांबोळी (*tāmboḷī*)–Sk. ताम्बूल (*tāmbūla*); O. भोक (*bhoka*)–Mar. भूक (*bhūka*); but more often अ (*a*) or आ (*ā*). Hindī बभूत (*babhūta*)–Sk. विभूति (*vibhūti*), Panj. निरखणा (*nirakhaṇā*)–Sk. निरीक्षण (*nirīkṣaṇa*), G. लखवुं (*lakhavũ*)–Sk. लिख् (*likh*), G. माणस (*māṇasa*)–Mar. माणूस (*māṇūsa*)–Sk. मनुष्य (*manuṣya*), G. परशोत्तम–पुरुषोत्तम (*paraśottama–puruṣottama*). This tendency is more wide-spread in the Guj. than in other vernaculars.

The vernaculars, like the Pāli and the Prākrits, have lost ऐ (*ai*) and औ (*au*); in their place, as in the place of अय (*aya*) and अव (*ava*), they have the simple vowels ए (*e*), ओ (*o*). Mar. गेरूं (*gerũ*)–Sk. गैरिक (*gairika*), Mar. गोरा (*gorā*)–Sk. गौरः (*gauraḥ*), Hindī, Beng., Oriyā सोहाग–सौभाग्य (*sohāga–saubhāgya*). मोतीं (*motī*) all dialects–Sk. मौक्तिकम् (*mauktikam*). In Mar. तेत्तिस–त्रयस्त्रिंशत् (*tettisa–trayastriṁśat*), ओळंबा–अवलंबकः (*oḷaṁbā–avalaṁbakaḥ*), the contraction is due to accent.

ऐ (*ai*) and औ (*au*) that are seen in some words are due either to combination of अ (*a*), इ (*i*) and अ (*a*), उ (*u*) when the consonant between them is dropped, or to the influence of Sanskrit. *e. g.* Hindī भैस (*bhaisa*), Mar. म्हैस (*mhaisa*)–Sk. महिषी (*mahiṣī*), Hindī and Panj. मैल (*maila*), Mar. मैला (*mailā*), a borrowed word—Sk. मलिन (*malina*); Mar. बैल (*baila*)–Pr. बइल्ल (*bailla*)–Sk. बलीवर्द (*balīvarda*), तैसा (*taisā*) most dialects—Apbh. तइस (*taisa*)–Pr. तादिस (*tādisa*)–Sk. तादृश (*tādṛśa*), Mar. चौथा (*cauthā*)–Pr. चउत्थ (*cauttha*)–Sk. चतुर्थ (*caturtha*), O. बौ (*bau*)–Ap. बऊ (*bau*)–Sk. वधू (*vadhū*), चौगुणीनें (*cangunīnē*)–Sk. चतुर्गुण (*caturguṇa*). In words like नैन (*naina*)–Sk. नयन (*nayana*),

H. and P. धौला–धवल (*dhaulā–dhavala*) they are due to अय (*aya*) and अव (*ava*).

Examples of assimilation are Mar. ऊंस (*ũsa*), H. ऊख (*ũkha*)–Pr. ऊच्छू (*ucchũ*)–Sk. इक्षु (*ikṣu*), सेज (*seja*) and शेज (*śeja*)–Pr. सेज्जा (*sejjā*)–Sk. शय्या (*śayyā*), मिरीं (*mirī̃*)–Guj. मरची (*maracī*), Pr. मरिअम् (*mariam*)–Sk. मरिचम् (*maricam*), H. इम्ली (*imlī*)–Sk. अम्लिका (*amlikā*). Metathesis is seen in H. उङ्गली–अङ्गली (*uṅgalī–aṅgulī*), Mar. हिरडा–हरितकी (*hiraḍā–haritakī*), H. अकेला–एकल्लक (*akelā–ekallaka*), H. बून्द–बिन्दु (*būnda–bindu*).

BHANDARRAR[1] draws attention to a sound-change which is due to accent. When the penultimate is accented, as is mostly the case in all vernaculars, the syllable under accent is lengthened and the final vowel is dropped. Mar. पद्धत–पद्धति (*paddhata–paddhati*), कीर्त–कीरत–कीर्ति (*kīrta–kīrata–kīrti*), रास–राशि (*rāsa–rāśi*), मध–मधु (*madha–madhu*). Where the syllable is already long, it is uttered with a stress. This lengthening is accentuated in colloquial speech and we get words like पाताळ (*pātāḷa*) for standard पातळ (*pātaḷa*), वंगाळ (*vaṁgāḷa*) for ओंगळ (*oṁgaḷa*), जतान (*jatāna*) for जतन (*jatana*).

The shortening and elision of vowels in Guj. and Hindī, *e. g.* कुवो (*kuvo*), ससूरो (*sasro*), सीक्युं (*sīkyũ*) etc., are also due to the shifting of the accent backwards. *e. g.* Mar. बैस (*baisa*) from उवइस (*uvaisa*).

Even initial vowels are elided under loss of accent; Mar. रान (*rāna*)–Pr. रण्ण (*raṇṇa*)–Sk. अरण्य (*araṇya*); Mar. भीतरीं (*bhītarī̃*)–Sk. अभ्यन्तरं (*abhyantaraṁ*), Mar. and Hindī रहाट (*rahāṭa*)–Pr. अरहट्ट (*arahaṭṭa*)–Sk. अरघट्ट (*araghaṭṭa*). This change began in the Prākrit stage itself as forms like रण्ण (*raṇṇa*) show, but had not become universal, *e. g.* अरहट्ट (*arahaṭṭa*). Dropping at the end is seen in Mar. तेरा (*terā*), चौदा–त्रयोदश (*caudā–trayodaśa*) etc.

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1. *Philological Lectures*, p. 152.

B. Consonantal changes:—After their emasculation in the Prākrits, the consonants do not appear to have suffered any further loss.

(*a*) Surds are often softened; *e. g.* Mar. सगळा (*sagaḷā*)–Sk. सकल (*sakala*), Mar. बगळा (*bagalā*)–Sk. बकः (*bakaḥ*), Mar. कागडा (*kāgaḍā*)–Sk. काक (*kāka*), cf. E. H. काग् (*kāg*), H. लोग् (*log*)–लोक (*loka*), E. H. एग्यारह (*egyāraha*), Guj. अग्यार (*agyāra*); Mar. निवडणें (*nivaḍaṇē*), E. H. निवाडै (*nivādai*)–Pr. नव्वट्टइ (*navvaṭṭai*)–Sk. निर्वर्तयति (*nirvartayati*)[1]; Mar. कवाड (*kavāḍa*)–Pr. कवाडअ (*kavāḍaa*)–Sk. कपाटक (*kapāṭaka*); Mar. घडणें–घटयति (*ghaḍaṇē–ghaṭayati*); Sindhī, Panj. पंज (*pamja*)–Sk. पञ्च (*pañca*), Col. Mar. पिढें (*piḍhē*)–Sk. पीठम् (*pīṭham*). It is to be remarked however that this softening had almost been completed in the Prākrits. Mar. भादवा (*bhādavā*)–Pr. भाद्दवअ (*bhāddavaa*)–Sk. भाद्रपद (*bhādrapada*). Mar. Guj. वावडि (*bāvaḍi*)–Sk. वापी (*vāpī*).

य् (*y*) and व् (*v*) are softened into इ (*i*) and उ (*u*). Examples[2] of the latter case are numerous. Mar. (अडोशी *aḍośī*) पडोशी (*paḍośī*)–Sk. प्रतिवेशी (*prativieśī*), P. जनेऊ (*janeū*), S. जनोई (*janoī*)–Sk. यज्ञोपवीत (*yajñopavīta*); Mar. भोंवरा (*bhōvarā*), भोंवळ (*bhōvaḷa*)–Pr. भंवर (*bhaṁvara*)–Sk. भ्रमर (*bhramara*), Mar. सोंपणें (*sōpaṇē*)–Apbh. सवंप्प (*savaṁppa*)–Sk. समर्प (*samarpa*), Mar. भे-सूर (*bhe-sūra*)–Sk. स्वर (*svara*).

ड् (*ḍ*) is softened into ळ् (*ḷ*)—दाळिंब-दाडिम (*dāḷiṁba–dāḍima*), पिळणें–पीड् (*piḷaṇē–pīḍ*), गूळ-गुड (*gūḷa–guḍa*). The र (*ra*) of numerals from 11 to 18 is due to ड (*ḍa*) softened from द (*da*). Mar. बारा (*bārā*), Guj. बार–द्वादश (*bāra–dvādaśa*).

न (*n*) becomes ल (*l*) more generally than in the Prākrits. *e. g*, Mar. लिंब–निंब (*limba–niṁba*), Hindī लोटके (*loṭake*)–Sk. निवर्त (*nivarta*), M. लवणें (*lavaṇē*), H. लौना (*launā*)–M. नमन (*namana*), Mar. Guj. नांगर–लाङ्गल (*nāṁgara–lāṅgala*).

1. BHANDARKAR, *op. cit.* p. 168.

र् (*r*) and ळ् (*ḷ*) are interchangeable. Still the Hindī, especially E. H. and Braj. prefer र् (*r*). Braj. धौरा (*dhaurā*), Col. Mas. ढवळा–धवल (*ḍhavaḷā–dhavala*); सांवरा (*sāvarā*), Mar. सांवळा (*sāvaḷā*)–Sk. श्यामलः (*syāmalaḥ*), Marāṭhī shows stray words like सांवरी (*sāvarī*) (but शेंवरी (*śēvarī*) also)–Sk. शाल्मलि (*śālmali*).

स् (*s*) or श् (*ś*), original or derived, becomes ह् (*h*) in some vernaculars. In Marāṭhī this change is only seen in the word दश (*daśa*) Mar. दहा (*dahā*). The Hindī and Sindhī have preserved it only in numerals between ten and twenty. H. ग्यारह (*gyāraha*), तेरह (*teraha*), सोलह (*solaha*), S. कारहं (*kārahaṁ*), तेरहं (*terahaṁ*), सोरहं (*soraheṁ*). Guj. (परम्) (*param*) दहाडे (*dahāḍe*), P. दिहं (*dihaṁ*), Mar. however दिस (*disa*). The form दिह (*diha*) is, however, found half a dozen times in the *Jñāneśvarī*, Sindhī and Panj. prefer ह (*ha*). P. सहुरा (*sahurā*), S. सहुरो (*sahuro*)–Sk. श्वशुर (*śvaśura*).

Col. Guj. agrees with them in this preference. Guj. हमजे (*hamaje*), understand. Guj. समजे (*samaje*), हात, हाडा (*hāta, hāḍā*), Mar. सात (*sāta*), साडे (*sāḍe*)–Sk. सप्त (*sapta*), सार्धम् (*sārdham*).

म् (*m*) is changed to वं (*vaṁ*) in many vernaculars; this change already began in the Prākrit stage. *e. g.* Pr. भंवर (*bhaṁvara*)–Sk. भ्रमर (*bhramara*). Mar. नांव–नाम (*nāva–nāma*), गांव–ग्राम (*gāva–grāma*), cf. S. नाउं (*nāuṁ*); Guj. गांम (*gāma*), H. गाम (*gāma*) are Sanskritisms or rather good तद्भव (*tadbhava*) words disturbed by तत्सम s (*tatsama*) again.

Some vernaculars show म् (*m*) for व् (*v*). *e. g.* Guj. ठाम (*ṭhāma*)–Mar ठाव (*ṭhāva*). Sindhī and Punj. मिंनत (*miṁnata*), B. मिनति (*minati*)–Mar. विनंति (*vinaṁti*), in verse विनति (*vinati*).

छ् (*ch*) original or reduced in the Prākrits from क्ष् (*kṣ*), त्स्य् (*tsy*), or त्स् (*ts*), is further changed in Mar. to स (*sa*), *e. g.*

Mar. मासा (*māsā*), H. माछ (*mācha*) मत्स्य (*matsya*) Mar. ऊंस-उच्छू (*ūsa-ucchū*) Sk. इक्षु (*ikṣu*), वास (रूं)-वच्छ-वत्स (*vāsarū-vaccha-vatsa*), सण (वार)-छण-क्षण (*saṇa*) (*vāra*)-*chaṇa-kṣaṇa*); घोंस-गोछ-गुच्छ (*ghōsa-gocha-guccha*).

The aspirates, soft or hard, become unaspirated in most of the dialects. *e. g.* Mar. शिकणें (*śikaṇē*)–Pr. सिक्ख (*sikkha*),–Sk. शिक्ष् (*sikṣ*). But Hindī retains them. *e. g.* लिखना (*likhanā*,) सीख (*sīkha*), भीख (*bhīkha*), हाथ (*hāthaˉ*).

ख्, घ्, थ्, ध् (*kh, gh, th, dh*), and भ् (*bh*) are reduced to ह् (*h*). This change also is already Prākritic; so that we must recognise the Prākrits in some form or other as a stage between old Sanskrit and the modern vernaculars.

Col. Mar. मोहरें (*moharē*), St. Mar. समोर (*samoraˉ*), Guj. मोढुं (*moḍhũ*), Hindī मुह (*muha*), Sk. मुख (*mukha*); Guj. Sindhī मेह (*meha*), मह्-मेघः (*mahu-meghaḥ*), माहर-माइघर-मातृगृह; (*māhara-māighara-mātṛgṛha*) Hindī नैहर-नाइघर-ज्ञातिगृह (*naihara-nāighara-jñātigṛha*).

Old-Mar. नाहो (*nāho*), H. नाह-नाथ (*naha-nātha*), मेहुण-मिथुन (*mehuṇa-mithuna*), कहाणी (*kahāṇī*), B. कहिनी-कथानक (*kahinī-kathānaka*) Mar. O. वहिरा-बाधिर (*bahirā-badhira*) H. Guj. Sin. वहू-वधू (*vahū-vadhū*); Col. Mar. पेहरण (*peharaṇa*) H. पहेरना (*pahernā*), G. पेहरवुं-परिधा (*peharavũ-paridhā*).

Mar. पहाट-प्रभात (*pahāṭa-prabhāta*), Guj. वाल्हो-वल्लभ (*vālho-vallabha*), H. दुल्हा-दुल्लह-दुर्लभ (*dulhā-dullaha-durlabha*) (another derivation, offered by BEAMES and BHANDARCAR[1] is from उदूढक (*udūḍhaka*), which is doubtful); cf. Old Mar. वाल्हेंदुलें (*vālhēdulē*) which occurs a couple of times in the *Jñāneśvarī*.*

1. *Wilson Philological Lectures, p.* 165.

* Further illustrations of the behaviour of ह (*h*) in Gujarāti deserve careful study: ब्हेन (*bhena*) and ग्हेलो (*ghelo*). The change of *h* into a glottal stop is noticed in a number of words: (Pers. *śahr* Guj. *śeher*=city; Guj. *leher*=wave. Pers. *zahr* Guj. *jher*=poison. Sk. dvi + *ubhau* Guj. *beu, behu*; Sk. *megha* Guj *meh*; Sk. *vadhū* Guj. *vahu*= (newly)wed. Sahāṇū=grown up) Ed.

For a detailed treatment of change of consonants see BHANDARKAR[2] and HOERNLE.[3]

Much need not be said regarding conjuncts. They already suffered a change in the Prākrits, being either assimilated or simplified. The modern vernaculars have carried on simplification further. Mar. काज (*kāja*)–Pr. कज्ज (*kajja*)–Sk. कार्य *kārya*); Mar. हात (*hāta*), Guj. हाथ (*hātha*)–Pr. हत्थ (*hatha*)–Sk. (हस्त (*hasta*), Coll. Mar. दीठ (*dīṭha*); Old. Mar. दिठी (*diṭhī*)–Sk. 'दृष्टि (*dṛsiṭ*), Mar. वीज (*vīja*)–Pr. विज्जुआ (*vijjuā*)–Sk. विद्युत् (*vidyut* Mar. माथा (*māthā*), Guj. माथुं (*māṭhũ*) B. माथा–मस्तक (*māthā–*) *mastaka*); Mar. . शिजणें (*śijaṇē*), Panj. सिज्जाणा–स्विद्यति (*sijjāṇā–svidyati*), Mar. Sin. वांझ (*vāṁjha*), O. B. वांझ–वंध्या (*vāṁjha–vaṁdhyā*); Mar. वुझावणें (*bujhāvaṇē*), H. वुझना–वुध्यति (*bujhanā–budhyati*) वाखाणणें–व्याख्यान (*vākhāṇaṇē–vyākhyāna*).

Another way of avoiding conjuncts was by introducing a vowel between the components or स्वरभक्ति (*svarabhakti*). This as we have seen, has been in operation from the most ancient times. *e. g.* Col. Mar. वरीस (*varīsa*), Hindī बरस–वर्ष (*barasa–varṣa*); Panj. अग (*aga*), Beng. आगुन (*āguna*), Coll. Mar. आगीन–अग्नि (*āgīna–agni*); शिलोक (*śiloka*), किळस (*kiḷasa*), नखेतर (*nakhetara*) are other examples. It is interesting to note that even foreign words are subjected to this process; *e. g.* पिलेग (*pilega*)–Eng. *plague*, सिलेट (*sileṭa*)–Eng. *slate*, पलाटफारम (*palāṭaphāram*)–Eng. *platform*. वखत (*vakhata*)–Per. Arab. वख्त् (*vakht*), मुलूख–मुल्क् (*mulūkha–mulk*) etc.

Most of the conjuncts that have remained in the vernaculars are due to the influence of Sanskrit; some belong to foreign words; *e. g.* वक्तशीर, तक्तनशीन (*vaktaśīra, taktanaśīna*) etc. Some of them are adventitious; *e. g.* Hindī हन्स (*hans*) from Sk. हंस (*haṁsa*), बन्सी–वंश (*bansī–vaṁśa*) etc. and are due to the inability of properly pronouncing the अनुनासिक (*anunāsika*).

2. *op. cit* p. 133 to 197.
3. *op. cit.* 31 to 45.

52 INFLECTION:—It has been already observed that the modern vernaculars have passed into the analytic stage.* Thus they have lost the old Prākrit inflection and have adopted postpositions as substitutes for case terminations. *e. g.* Mar. लागीं (*lāgī̃*), पाशीं (*pāśī̃*), ला (*lā*), col. Mar. प (*pa*) *e. g.* माझ्यापा=मजपाशीं (*māhyāpa = majapāśī̃*), Guj. नें (*nẽ*), थी (*thī*), नो (*no*), मां (*mā̃*) (from मध्यात् (*madhyāt*), Braj नैं (*naĩ*), कू (*kū̃*) or कौं (*kaũ*), or कें (*kẽ*), में (*mẽ*), मैं (*maĩ*), लौं (*laũ*) (cf. Mar. ला (*lā*), Avadhī का (*kā*), से (*se*), केर (*kera*) or कर (*kara*), में पर (*mẽ para*), Bengālī के (*ke*), रे (*re*), ते (*te*), अर् (*ar*) or एर् (*er*). etc. There is however some distinction. In some dialects, these postpositions are looked upon as almost part of the word, *i. e.* they are passing into the synthetic stage again; in others they are still regarded as quite distinct from the base to which they are added on.

The vernaculars, like the Pāli and Prākrits, have no dual.[1] In some there are three genders, but in others, like Eastern Hindī[1] and Bengālī only two; *i. e.* nouns in these latter are either masculine or feminine. In some vernaculars the plural is formed by adding a word meaning 'many or people'. *e. g.* Bengālī कुकुर सकळ (*kukkura, sakaḷa*) dogs, Bihārī छोकरालोक (*chokarāloka*). A trace of it is seen in Mar. दोघेजण, सर्वजण (*doghejaṇa, sarvajaṇa*).

There are no consonantal bases, most of them having dropped the final consonant or added an अ (*a*) to it. Some

* The Hindī is no exception to this progressive tendency of the modern Indian languages. This is observed also in what is, for the sake of convenience called Bazaar—Hindustani which is perhaps by "widest commonalty" expressed and understood to-day (1947) and whose area is growing very rapidly. In "*Indo-Aryan and Hindi*" Dr. S. K. CHATTERJI calls it the "*ja-me-per-se-is-kis-mis-jis*" language.

1. RAJWADE, *Jñyāneśvarī Grammar*, p. 20 says that the dual of nouns in अ (*a*) is found in Jñ. He adduces only one passage *Jñ.* 7 32, where it is highly doubtful, if not spurious.

1. HOERNLE, *Gaudian Languages* Pp. 181, 185.

bases in original ऋ (*ṛ*) have assumed an आ (*ā*) ending from the Sk. nom. of these bases; *e. g.* Mar. पिता–पित्यास (*pitā–pityāsa*), माता–मातेस (*mātā–mātesa*); some of them have an उ (*u*), Mar. भाऊ (*bhāū*), जाऊ–भावास (*jāū–bhāvāsa*), जावेस (*jāvesa*). So that there are really only vowel stems in अ, आ, इ, ई, उ, ऊ (*a, ā, i, ī, u, ū*), and ए (*e*) etc.

(*a*) The modern vernaculars have preserved only some of the Apabhraṁśa case terminations. Thus the old Mar. has preserved the उ (*u*) of the nom. sing., एं (*ē*) and नें (*nē*) of the instr. sing., the Bihārī has preserved only the एं (*ē*) termination; the Guj. has it without the nasal; *e. g.* Guj. छोकराए (*chokarāe*) *by a boy*; the instr. pl., the स (*sa*)[2] of the dative, which according to some is from स्स–स्य (*ssa–sya*) of the genitive, इं (*ĩ*) of the loc. sing., from सि–स्मिन् (*sī–smin*). Of the plurals, the Mar. has preserved the nom. pl. of neuters, कमलें (*kamalē*) from कमलइं (*kamalaĩ*), the instr. pl. in देवीं (*devĩ*), which is reduced from Apbh. हिं (*hĩ*). The Sindhī and Panjābī have preserved the abl. ह्मा–स्मात् (*hmā–smāt*) in आं (*ã*) and ओं (*õ*), the Hindī and Oṛiyā the loc. in ए (*e*).

These and the new terminations like Mar. ला (*lā*), लागीं (*lāgĩ*), हून (*hūna*) आंत (*ãta*), Guj. थी (*thī*), मां (*mã*), नें (*nē*), नों (*nõ*), Braj. कूं (*kũ*), कौं (*kaũ*), सूं (*sũ*), Maithilī कें (*kẽ*), and सौं (*saũ*), कर् (*kar*), मां (*mã*), Beng. एर् (*er*), देर् (*der*), दिगेर् (*diger*) etc. are added in the vernaculars, except in the Bengālī and Oṛiyā, to what is called the oblique from. This oblique form is nothing else than the old genitive.[3]

(*b*) The terminations that are not directly traceable to Apbh. or Prākrit are variously explained by scholars. Thus CALDWELL traces the क (*ka*) terminations in different vernaculars to Dravidian कु (*ku*); this, as Dr. BHANDARKAR has

2. According to BHANDARKAR, old Marāṭhī does not have this स (*sa*). *Vide* p. 204.

3. BHANDARKAR, *op. cit.* p. 234 and 241.

rightly pointed out, is absurd. The vernaculars, especially the Marāṭhī, have drawn to some extent upon Dravidian vocabulary; but they have kept their grammar in tact. An isolated borrowed form is a strange instance of linguistic borrowing, even if granted for argument's sake. The other possible derivation is from कृते (*kṛte*), but this leaves the *anusvāra* unexplained. Dr. BHANDARKAR[1] traces them to the Apbh. postposition केहिं (*kehī*). Thus तें (*tē*), तईं (*taī*) etc. would be traced to Apbh. तेहिं (*tehī*).

The Mar. ला (*lā*) of the dative is to be considered in connection with a similar postposition in the other vernaculars. Cf. P. लइ (*lai*), S. लाइ (*lāi*), N. लाय (*lāya*) all meaning 'for'. This has been connected with the root लग् (*lag*); लागीं–लाईं–ला (*lāgī̃–lāī̃–lā*). The ना (*nā*) of the plural is also to be connected with ला (*lā*), the change being influenced by the preceding *anuṣvāra* which in the vernaculars has come to be invariably associated with the plurals. A subdialect of Mar. shows त्यान्ला (*tyānlā*) which is the intermediate step leading to त्यांना (*tyā̃nā*). The idea that the ला (*lā*) is to be traced to Persian[2] रा (*rā*) is as absurd as the Dravidian origin of the क (*ka*) terminations above spoken of.

The Guj. नों, नीं, नु (*nõ, nī̃, nu*) are derived from the Apbh. suffix तण (*taṇa*); the ने (*ne*) of the dative is also to be traced to the same and is not to be regarded as due to लो (*lo*)[3], ला (*lā*). This latter change would be unaccountable in Gujarātī.

The abl. suffix is in Marāṭhī हून (*hūna*) and सून (*sūna*), Old Mar. हूनियां (*hūniyā̃*). BHANDARKAR derives it from the

1. *Wilson Philological Lectures op. cit.* 247. Otherwise BEAMES, *Comparative Grammar* II. p. 255.

2. RĀJWĀDE, *Jñyāneśvarī Grammar* p. 12 and 26. HOERNLE, *Gaudian Grammar* 244.

3. BEAMES, *Comparative Grammar* II. p. 260.

absolutive होऊन (*hoūna*) *having become,* but this is doubtful. European scholars think that it is due to the fusion of Apbh. forms हिंतो–सुंतो (*hiṁto–suṁto*), which themselves are composite forms made up by instr. and loc. terminations with the abl. तस् (*tas*) added. It is perhaps to be traced to हु (*hu*) and हुं (*huṁ*) of Apbh. abl. sing. and pl. terminations, the *anunāsika* in the latter being responsible for the full nasal. This is still further reduced to ऊन (*ūna*) and ऊनियां (*ūniyā*), औनियां (*auniyā*) of Jñāneśvarī Marāṭhī. Maithilī सौं (*saũ*), Braj. सों (*sō*), सूं (*sũ*), Avadhī से (*se*), सेनी (*senī*) etc. to be traced to the Apbh. loc. सुं (*suṁ*), which is also seen in Apbh. abl. सुंतो (*suṁto*). The Guj. थी (*thī*) Panj. थी, थों (*thī, thō*) are to be traced to Apbh. तहिं (*tahī*) with the aspiration thrown back.

The Mar. genitive is no real case. The suffix च (*ca*) makes of the noun a possessive adjective which agrees with the noun in gender, number and case. Thus Mar. has चा, ची (*cā, cī*) चें (*cē*), Guj. नो, नी नुं (*no, nī nũ*), Sindhī जो, जी (*jo, jī*), W. Hindī का, की (*kā, kī*), Braj. कौ (*kau*), E. H. कर, केर (*kara, kera*), Panj, दा, दी (*dā, dī*), Beng. इर्, एर् (*ir, er*), O. र (*ra*). The last to apparently do not change; and Sindhī, Hindī and Panjābī have two forms only as they have two genders only, the masc. and fem. The Maithilī shows a क (*ka*) *e. g.* पानिक (*pānika*) *of water*[1].

The Sk. and Apbh. origin of these is easily disposed of when it is pointed out that none of them is a real case suffix. The Marāṭhī च (*ca*) could not be traced to Pr. स्स (*ssa*). Sk. स्य (*sya*); besides it is phonetically impossible. Nor can it be derived from Hindī का, केर (*kā, kera*)[2]. The only likely derivations

1. HOERNLE, *op. cit.* 221, BHANDARKAR *op. cit* p. 256.

2. HOERNLE, *op. cit.* 238 derives it in that way. His attempt to prove that अम्हेच्चयं, तुम्हेच्चयं (*ahmeccayaṁ, tuhmeccayaṁ*) are only other forms of अम्हक्केरं, तुम्हक्केरं (*ahmakkeraṁ, tuhmakkeraṁ*) has not in the east succeeded.

are (1) from the suffix त्य (*tya*) which certain indeclinables take in Sanskrit; this would become च्च (*cca*) in Prākrit and simple च (*ca*) in Mar. and (2) from the suffix ईय (*īya*). BHANDARKAR[1] lends the weight of his authority to the former and Krishṇashāstrī CHIPLUNKAR, and Krishnashastri GODBOLE incline to the latter view. I am also inclined to side with the latter[2]. The ईय (*īya*) gives the Sindhī जो, जी (*jo, jī*). How the ज (*ja*) of इज्ज, ईय (*ijja, īya*) came to be च (*ca*) will have to be investigated. The Guj. नों, नी, नुं (*nõ, nī, nũ*) are to be derived from तण (*taṇa*) (Sk. त्वन (*tvana*)?); the Old Guj. itself shows forms in तण (*taṇa*) *e. g.* चित्ततणा (*cittataṇā*) 'of the mind.' The suffixes कर, केर (*kara, kera*) and इर्, एर् (*ir, er*) are to be traced to Apbh. केरक, केरअ (*keraka, keraa*)–*e. g. Mṛcchakaṭika*–तुह वप्पकेरके उय्याणे (*tuha bappakerake uyyāṇe*)?' In the latter case the क (*ka*) was softened into a vowel when it was no longer regarded as a postposition, but a suffix attached to words. It thus became medial and was, according to the well known Prākrit law, dropped. The other set of gen. suffixes का (*kā*), कौ (*kau*) etc. are derived by BHANDARKAR from कृत (*kṛta*) through कअ (*kaa*). This same कृत (*kṛta*) would in Śaurasenī Apbh. become कद (*kada*) and lose its क (*ka*) so soon as it ceased to be initial and thus give दा, दी (*dā, dī*) of the Panjābī. HOERNLE[3] derives it from root दा (*dā*). BEAMES'S[4] derivation from the present participle सन्त–सन्दो–हन्दो–दो (*santa–sando–hando–do*) is, to say the least, unthinkable.

The suffixes for the loc. are Mar. आंत (*ãta*), Beng. and Panj. ते (*te*), Guj. मां (*mã*), Braj. मे, मै (*me, maĩ*), also पैं (*paĩ*) and लौं (*laũ*), Avadhī में (*mẽ*), Sindhī मे (*me*). These are not as tough to explain as were the gen. suffixes. आंत (*ãta*)

1. Also BEAMES, *Comparative Grammar* II p. 289.
2. See *supra* p. *29. 30.*
3. *op. cit.* 239.
4. *op. cit.* 291.

is from the Sk. adverb अन्तः (*antaḥ*); मां, में, मैं (*mā̃, mẽ, maĩ*) are from Sk. मध्ये (*madhye*) through Apbh. माहिं–माइं–मैं (*māhĩ–māĩ–maĩ*), or माइ–मे (*māi–me*); पैं (*paĩ*) is from पार्श्व (*pārśva*). We have पाशीं (*pāśĩ*) and Hindī and Guj. पासे (*pāse*) used as postpositions. लौं (*laũ*) has the same genesis as Mar. ला (*lā*), Nepālī, Hindī लाई (*lāĩ*).

(b) Adjectives follow nouns in gender, except in Oriyā and Bengālī where they change rarely, and in number and case also. But mostly they are used in what is called the oblique form; Mar. चांगल्या घोड्यास (*cāṁgalyā ghoḍyāsa*). The comparison is formed by words like अधिक, बहोत, सबसे, (*adhika, bahota, sabase*) and others. The Sk. ईयस (*īyas*), इष्ट (*iṣṭa*), are given up, and तर (*tara*) and तम (*tama*), are only used in what passes for classical style now-a-days.

(*c*) Much need not be said regarding pronouns. We shall only give the personal pronouns and their cases in the different vernaculars.

Mar.—मी, मला, मजला, मज, माझा, माझ्यांत; आह्मीं, आह्मांस, आमचा, आमच्यांत, तूं, तुला, तुजला, तुज, तुझा, तुझ्यांत; तुह्मीं, तुह्मांस, तुमचा, तुमच्यांत. (*mī, malā, majalā, maja, mājhā, majhyāta, āhmī̃, āhmā̃sa, āmacā, āmacyāta, tũ, tulā, tujalā, tuja, tujhā, tujhyāta, tuhmī̃, tuhmā̃sa, tumacā, tumacyāta*)

Guj.—हुं मने. मारे. हूंथी. मारेथी. मारो. मारामां; अमे, अमने, अमारो, अमथी, अमारामां etc.; तूं, तने, तूंथी–ताराथी, तारो, तारामां–तुजमां etc. तमे, तमने, तमाराथी–तमथी, तममां–तमारामां. (*hũ, mane, māre, hũthī, māre thī, māro, mārāmā; ame, amane, amāro, amathī, amāramā̃*, etc., *tũ, tane, tũthī,–tārāthī, tāro, tārāmā̃–tujamā̃* etc. *tame, tamane, tamārāthī–tamathī, tamamā̃–tamārāmā̃*).

Braj—हौं, मैं, मोहि, मोइ; मेरउ; हम्, हमैं, हमारौ, हमार्‌यौ; तू, तैं, तोहि, तूहि, तेरौ, तेर्‌यौ; तुम्, तुह्मैं, तुह्मारौ, तुह्मार्‌यौं (*haũ, maĩ, mohi, moi, merau, ham, hamaĩ, hamārau, hamāryau, tu, taĩ, tohi, tūhi,t erau, teryau, tum, tuhmaĩ tuhmārau, tuhmāryaũ,*).

Maithilī : में (*me* हम् *ham*) मोहि, मोर् (*mohi, mor*) हमार् हम्, सब्; तोंह, तोहार्, तोंह सब्. (*ham, sab, tōha, tōhār, tōha hamār*), *sab*).

Beng.—मइ, मोर, मोते, (*mai, mora, mote*), मोरा, मोदेर (*morā, modera*); तुह, तोर्, तोते (*tuha, tor, tote*); तोरा, तोदेर (*torā, todera*),

Oriyā.—मुं, मोते, (*mũ, mote*), मारा-मोहारा, (*mārā-mohārā*), मोमाने, (*momāne*), मोमानक, (*momānka*); तुं, तोते (*tũ, tote*), तोरा, तोमाने (*torā, tomāne*), तोमानंक (*tomānāṁka*). There are also forms used in respectful language like आम्भे, तुम्भे (*āmbhe, tumbhe*) etc.

Avadhī.—मैं, मोर् (*maĩ, mor*); हम्, हमार (*ham, hamār*); तै or तूं (*taĩ* or *tũ*), तोर, तुम् (*tor, tum*) or तैं (*taĩ*), तोहार, (*tohāra*), or तोहरे (*tohare*).

Sindhī.—आंऊ, आ (*ãũ, ã*), असीं (*asĩ*), तूं (*tũ*), and तव्हां (*tavhã*), असांखे, अवांखे, तोखे, तवांखे, मोखे, माखे, मुंझो, तुंझो, अवांजो, तवांजो, (*asãkhe, avãkhe, tokhe, tavãkhe, mokhe, mākhe, mũjho, tũjho, avãjo, tavãjo*).

These forms need no comment except that the Guj. and Braj. *i.e.* the Western Hindī, Panjābī and Sindhī agree in deriving the first person from the Sk. base अहकम् (*ahakam*), Māg. हगे (*hage*), and the rest viz. Marāṭhī, Eastern Hindī, Bihārī, Bengālī and Oriyā agree in having the base म (*ma*), which underlies the other cases in Sanskrit.

b. CONJUGATION:—It is in this respect that the vernaculars have suffered great losses. Of tenses the old present only is preserved, but in a special sense and a new class of participial tenses is created. Of the moods imperative only is preserved. There are however the usual verbal derivatives.

The cojugational distinctions were already lost during the Prākrit stage; but the additions that Sk. roots took in the various classes are seen in some bases in the varnaculars. *e. g.* Mar. बिहिणें (*bihiṇē*)–Sk. विभी (*vibhī*), सिजणें–स्विद्य (*sijaṇē–svidya*),

माजला (*mājalā*)–Sk. माद्य (*mādya*), जाणणें–जाना (*jāṇaṇē–jānā*) etc. Hindī सुण–श्रुणु (*suṇa–śṛṇu*).

(*a*) The old present is preserved in most vernaculars

Mar.	Apbh.
हसें हसों or हसूं (*hasē hasō* or *hasũ*)	हसउं हसहुं (for हसामो) (*hasaũs hasahũ* for *hasāmo*)
हसस हसा (*hasasa hasā*)	हसहिं (सि) हसहु (*hasahĩ* (*si*) *hasahu*)
हसे हसत (*hase hasata*)	हसइ हसहिं (हसन्ति) (*hasai hasahiṁ–hasanti*)

Guj.	H.	Benj.
करूं करिये (*karũ kariye*)	करुं करें (*karũ karē*)	करि करि (*karĩ kari*)
करे करो (*kare karo*)	करे करो (*kare karo*)	करिस कर (*karis kara*)
करे करे (*kare kare*)	करे करें (*kare karē*)	करे करेन (*kare karena*)

Or	S.	Panj.
करइं करु (*karaĩ karu*)	हलां हलूं (*halā halũ*)	करां करय (*karā karaya*)
करु कर (*karu kara*)	हले हलो (*halē halo*)	करे करो (*karē karo*)
करइ करन्ति (*karai karanti*)	हले हलनि (*hale halani*)	करे करण (*kare karaṇa*)

It will be seen that these forms are so transparent, that a glance at them will convince that they are an old inheritance preserved in these languages. In all cases the Apbh. ह (*h*) is dropped and the vowels combined. Some languages, like the Bengālī and Oriyā, have lost the nasal of the first person. Mar. Guj. and Hindī have lost the nasal in the third person. Marāthī second person sing. form हसस (*hasasa*) is not be traced to Apbh. हसहि (*hasahi*), but to be looked upon

as a Māhārāṣṭrī-ism, for we have हससि (*hasasi*) there like Sanskrit; Oṛiyā करन्ति (*karanti*) is also a borrowed form.

Of the old moods the imperative[1] only is preserved. In Mar. for instance we have करूं (*karũ*) and करूं-करों (*karũ-karõ*) for the first person, कर-करीं (*kara-karĩ*) and करा (*karā*) for the second and करो, करोत (*karo, karota*) for the third. The Bengālī and Oṛiyā have this mood; other languages have preserved the second person only. करूं (*karũ*) and करां (*karã*) are from करामु (*karāmu*), करामो (*karāmo*), the nasal having changed to an *anunāsika*. करीं (*karĩ*) is regular Apbh. करो (*karo*) is from करउ (*karau*), the अ (*a*) and उ (*u*) give ओ (*o*) in combination.

For Bengālī and Oṛiyā forms and their explanation see BHANDARKAR[2].

The Hindī, Gujarātī and Panjābī have कर (*kara*) for the 2nd pers. sing. like Mar. and करो (*karo*) for the plural. This, it well be observed, is also the form for the present in these languages. Panj. ईं (*ĩ*) and Sindhī इ (*i*) and उ (*u*) follow Apbh. forms. The old Mar. forms in जो (*jo*) like अवधारिजो, दीजो, भोगिजे (*avadhārijo, dījo, bhogije*) कीजे (*kije*) are from the pass. imperative and to be traced to अवधीरिज्जइ, दिज्जइ, किज्जइ (*avadhārijjai, dijjai, kijjai*) etc.

(*c*) The old future is preserved wholly in languages like the Gujarātī and Hindī and partly in some others. Guj. करीश, करिशुं (*karīśa, kariśũ*); करशे, करशो (*karaśe, karaśo*) and करशे, करशे (*karaśe, karaśe*), old Guj. करीस (*karīsa*) etc, show the characteristic स्य (*sya*), स्स (*ssa*) of the future. This same has become ह (*ha*) in the Braj[3], where the forms are करिहौं, करिहैं (*karihaũ, karihaĩ*); करिहैं, करिहो (*karihaĩ, kariho*); करिहै, करिहै (*karihai, karihai*).

(*d*) The new present tense is formed in most vernaculars by taking the present participle as the base and adding

1. BHANDARKAR *Wilson Philological Lectures*, p. 213
2. *op. cit.* p. 213.
3. BHANDARKAR *op. cit.* 218, HOERNLE *op. cit* 256.

terminations expressive of person and also gender. Mar. करतों (*karatō*), करते (*karate*); करतोस (*karatosa*), करता (*karatā*); and करते (*karate*), करतात (*karatāta*). The personal terminations are seen in the first pl, second singular and plural, which according to Dr. BHANDARKAR go back upon इत्था (*itthā*) of the Prākrits. In the others it had to make place for the termination of the adjective. The Hindī, Bengālī and Oṛiyā also have this sort of present, but it has acquired the sense of the habitual present, just as the old present has done in Marāṭhī.

(*e*) The past tense has the same story to tell. It is expresed in all modern vernaculars by the past participle with a few personal terminations. It is also an adjectival tense, Mar. केलें (*kelē*), केलेंस (*kelēsa*), केलें (*kelē*) or गेलों (*gelō*) गेलास (*gelāsa*), गेला (*gelā*) and गेले (*gele*) are clearly forms of the past participles के (*ke*) and गे (*ge*), Pr. कअ (*kaa*) and गअ (*gaa*) with a termination ल (*la*), which now has acquired the past significance though it originally had none For the genesis of this ल (*la*) which is found besides in Bihārī; Bengālī, Oriyā, Assamese and Sindhī see supra Pp. *24, 25.*

The Bihārī and the Bengālī add to the ल (*la*) what GRIERSON[1] calls the enclitic pronoun, like the Marāṭhī. Thus Bhojapurī has मारलो (*māralo*), मारलास (*māralāsa*), मारलास (*māralāsa*) which correspond to the Mar. गेलों (*gelō*), गेलास (*gelāsa*).

In the other languages the simple past participle serves as base of the tense. Guj लीधुं (*līdhũ*), कीधुं (*kīdhũ*) दीधुं-लब्ध (*dīdhũ-labdha*), कृत (*kṛta*), दत्त (*datta*), गया-गअ-गत (*gayā-gaa-gata*); Avadhī कीन्ह, (*kīnha*) दिये (*diye*), मिली-कृत (*milī-kṛta*), दत्त (*datta*), मिलित-मिलिअ (*milita-milia*). The Eastern Hindī differs from the others in adding to the participle the enclitic pronoun like the Bihārī and others.

(*f*) For the future the Mar. has a suffix न, ल (*na, la*) which is added on to the old present forms. *e. g.* मी करीन

1. *Linguistic Survey*, 5. 5.

(*mī karīna*), तूं करशील (*tũ karaśīla*), तो करील (*to karīla*), तुह्मी कराल (*tuhmī karāla*), ते करतील (*te karatīla*), आह्मी करूं (*āhmī karũ*) is exactly like the old present. It seems that the old present did the function of the future also, but in order to avoid confusion a suffix was added to distinguish between the two. The Bengālī and Oṛiyā have taken the help of the potential participle in तव्य (*tavya*), which when combined with the preceding root lost the medial त (*ta*) and gave by assimilation a व्व, ब्ब (*vva, bba*), *e. g.* Bengālī करिव (*kariba*), करिबे (*karibe*), करिबेन् (*kariben*), Oṛiyā देखिबि (*dekhibi*), देखिबु (*dekhibu*), देखिब (*dekhiba*), Bihārī देखब (*dekhaba*), देखबह (*dekhabah*) etc. The Eastern Hindī is true to its character viz. of being a half Māgadhī idiom, and therefore shows forms like देखबूं (*dekhavũ*), करबूं (*karavũ*), देखबस (*dekhabasa*) and देखे, देखिहै (*dekhe, dekhihai*) side by side. The Braj and the Panjābī have a future in गा (*gā*), *e. g.* करूंगा (*karũgā*), बोलूंगा (*bolũgā*), and the Sindhī in दा (*dā*). These are generally added to the forms of the old present. This गा (*gā*) and दा (*dā*) are supposed to be participles[1] of the past of roots गम् (*gam*) and दा (*dā*).

(*g*) There are participles present past and potential; *e. g.* Mar. करित, धांवत (*karita, dhāvata*), Guj. करत (*karata*), Beng. करित, देखित (*karita, dekhitā*), Hindī करता (*karatā*), Or. करन्त (*karanta*) and S. मारींदो (*mārīndo*). The last two only have preserved the nasal. Past part. are the same as in the Prākrits. H. गया (*gayā*), दिया (*diyā*), Guj. लीधुं (*līdhũ*). The Mar. has added one more ल (*la*) to the past part. in order to distinguish it from the past tense; घेतलेलें (*ghetalelē*), and केलेलें (*kelelē*). Mar. करावें (*karāvē*), Guj. करवुं (*karavũ*), Braj. करवौं (*karavaũ*), S. करिबो (*karibo*) are potential participles.

The absolutive is formed in various ways according to the genesis of the language. Thus the Mar. has करून (*karūna*), देऊन (*deūna*), Pr. काऊन, दाऊण (*kāūna, dāūṇa*); Guj. has करीने

1, BHANDARKAR *op. cit.* p. 271, HOERNLE *op. cit.* p. 357.

(*karīne*), लईने (*laīne*) which are composite, either due to Apbh. एविणु (*eviṇu*) or to Pr. इअ (*ia*) and नें (*nē*) enclitic. Hindī has देखि (*dekhi*), सुनि (*suni*), करि (*kari*) which are traceable to Pr. abs. इअ (*ia*), करि (*kari*) is further shortened to कर (*kara*) and itself becomes a further abs. termination, *e. g.* सुनकर (*sunakara*), जाकर (*jākara*); Oṛiyā has इ (*i*) and Bengālī इ (*i*), इया (*iyā*).

The Mar. only has preserved the infinitive of purpose. करूं, बोलूं (*karũ, bolũ*) are to be traced to Pr. करिउम् (*kariuṁ*) etc. from Sk. कर्तुम् (*kartum*).

Verbal nouns are formed by various forms of अन (*ana*) which is both Sk. and Prākrit. Mar. करणें (*karaṇē*), Hindī and Panj. करना (*karanā*), Sindhī करणु (*karaṇu*), Bengālī and Oṛiyā करन (*karana*). Gujarātī has a verbal noun in वुं-करवुं (*vũ-karavũ*), देवुं (*devũ*), लेवुं (*levũ*).

(*h*) The causal is formed in Mar. by adding ईव (*īva*), अव (*ava*) to root; करिवणें (*karivaṇē*), करावुं (*karāvavũ*), लगावुं (*lagāvavũ*); Sindhī वाइणु, धोआइणु (*vāiṇu, dhoāiṇu*). Hindī has नचाना, पढाना (*nacānā, paḍhānā*), also पढवाना (*paḍhavānā*) and दिलाना (*dilānā*), दिलवाना (*dilavānā*); the two latter are evidently double causals. Beng. and Oṛiyā देखाइ (*dekhāi*) etc. There are besides causals formed by strengthening the root vowel as in Sanskrit. मारणें (*māraṇē*), तोडणें (*toḍanē*), फोडणें (*phoḍaṇē*) मरणें (*maraṇē*), तुटणें (*tuṭaṇē*), फुटणें (*phuṭaṇē*).

(*g*) The old passive is preserved only in Panjābī and Sindhī in forms like मारीए (*mārīe*), मारीअव (*mārīava*). This is from the Prakrit इअ (*ia*) passive. There is also the ज (*ja*) passive in पीजणूं (*pījaṇũ*). The old Marāṭhī shows a few old passive forms. The *Jñāneśvarī* has सांगिजति (*sāṁgijati*), वधिजति (*vadhijati*), नाशिजल (*nāśijala*), किजसी (*kijasī*). Oid Hindī also shows a few of them *e. g.* पूजियत् (*pūjiyat*), चाहियत् (*cāhiyat*). The modern Marāṭhī has a periphrastic passive *e. g.* दिलें जातें (*dilē jātē*), घेतलें गेलें (*ghetalē gelē*) etc.

53. BEGINNING OF THE VERNACULARS:—The oldest Marāṭhī literature available is the *Jñāneśvarī* and its date is Śaka 1212 i. e. A. D. 1290. Besides this there is inscriptional evidence also for the Marāṭhī. There is the Pātan[1] inscription of 1208 A. D. which contains some lines in Marāṭhī beginning with 'इयां पाटणीं जें केणें उघटे तेहाचा' (*iyā pāṭaṇī jē keṇē ughaṭe tehācā*) etc. There is another inscription, older still, found at Parel.[2] This belongs to 1187 A. D. *i. e.* hundred years before the *Jñāneśvarī*. It contains only about three lines beginning with 'जो कोणि हुवि ए शासन लोपी तेच्या वेद्यनाथाची भाल सकुटुंबा आपडे' (*jo koṇi huvi e śāsana lopī tecyā vedyanāthācī bhāla sakuṭumbī āpaḍe*) etc. This gives to the Marāṭhī a distinct un-Prākrit form in the twelfth century A. D. We can therefore safely put the beginning of Marāṭhī a couple of centuries back. The attempt of certain scholars[3] to take Marāṭhī as far back as the 5th century is unsuccessful because it is not well grounded.

The other vernaculars are less fortunate in this respect than their sister. Thus the oldest work in Avadhī Hindī is that of Tulasidās, a poet of the 16th century. The Braj however possesses a work, the *Prithvīrāja Rasau* of Chand Bardai who lived towards the close of the twelfth century. This also points to the same conclusion, that the Hindī, at least the Western Hindī, had a definite form by that time. Its beginning therefore can be placed a couple of centuries earlier.

Since the Marāṭhī, the southernmost of all these vernaculars, is found in a distinct developed form so early, we presume that the others also must have developed about the same time. Early eleventh century, therefore, can be safely regarded as the beginning of the modern vernaculars.

1. *Epigraphia Indica* Vol. II.
2. *Journal of the Bombay Branch of the R. A. S.* 1876 p. 334.
3. RAJWADE, *Jñāneśvarī*, introduction.

It is necessary here to refer to Dr. TESSITORI'S remarks in this connection. Speaking of the time of the final detachment of old Western Rājasthānī from the Apabhraṁśa, he fixes it at the thirteenth century[1] or thereabouts. Old Western Rājasthānī is in plain words old Gujarātī. TESSITORI is rather over cautious. The *Mugdhāvabodhamauktika* is the oldest work in Gujarātī and it was according to him written in 1394 A. D. and in the completely developed form of the language. The prior date is supplied by the *Prākrita-Piṅgala* which by no means definitely, is assigned to, say, the 12th century. It is obvious that the work was written in Prākrit by way of fashion or habit and can not be regarded as supplying the lower date of the Prākrit. For aught we know, the language in which it is written might have been some five centuries older than its author. Thus even the modest estimate of TESSITORI does not preclude our placing the beginnings of the vernaculars in the early eleventh century. The Nāgarīpracāriṇī Sabhā, it is said[2], has discovered and published in its journal authentic documents in old Hindī belonging to the 10th century.

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1. *Indian Antiquary*, 1914 p. 24.

2. Prof. H. R. DIVEKAR gave me this information orally. I have not yet got the original papers.

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APPENDIX I

INDO-ARYAN AND HITTITE

The greatest achievement of linguisticians of the past century was the scientific reconstruction of PRIMITIVE INDO-EUROPEAN in its phonology and inflexions. The sound of the human voice five thousand years ago was once again heard. PIE in Eurasia was the source of Sanskrit, Greek, Russian and the modern languages belonging to IE family.

The phonetic system contained *a e i o u* short and long, diphthongs formed by combinations of any two from these, short and long, and short *y*, and *i* and *ŭ*. The consonants contained the labials *p, ph, b, bh, m*; the dentals or alveolars *t, th, d, dh, n*; the palatals *k, kh, g, gh, ñ*; the velars *q, qh, g, gh, ṅ*; the labialized velars q^{u}, qh^{u}, g^{u}, gh^{u}, n^{u}; the liquid or syllabic *r̥* and *l̥* and the sibilant *s* with *z* as a modification. There was a total lack of spirants except in the solitary *s* (*z*). Some scholars hold that *x*, *γ*, *θ*, *δ*, *z* were also known.

IE morphology and declension were also generally discovered to be parallel to the Vedic.

The Twentieth century began with further discoveries of new linguistic material in Asia Minor belonging to the middle of the second millenium B. C. They are as follows :

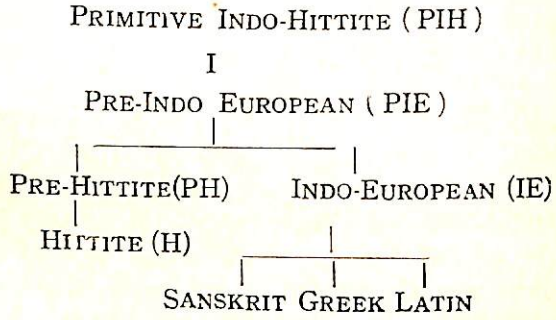
(i) In 1902, a study of the two letters of the Pharaoh of Egypt, Amenhetep II to King Arzawa in Asia Minor, by J. A. KNUDTZON revealed the Indo-European character of the language.

(ii) In 1907, Hugo WINCKLER discovered a whole literature in HITTITE language written in cuneiform manner of writing on 10,000 clay tablets in the Turkish village of Boghazköe which is the site of the ancient Hittite capital of

Hatusas. They are Royal Archives of the Chatti Empire containing the treaty records with the Mittani people. This proved to be a "*veritable embarrass de rechesse* to the learned world". MEYER identified the names of Vedic Gods in the records.

(iii) In 1916, the Czechoslovakian scholar F. HRONZY was able to demonstrate the Indo-European character of the Hittite language. MARSTANDER gave a full sketch of the language in 1922 from Christina and STURETEVANT'S *Comparative Grammar* of *Hittite* came in 1933. Since then American scholars have traversed much additional ground.

Reconstructed IE explained all the IE languages. Hittite revealed itself as an IE language, but did not fit in with the other IE languages. Scholars therefore supposed that Hittite was an earlier branching off from a *common source.* STURTEVANT and other Hittitologists now take the position that Hittite is not a descendent of IE like Sanskrit or Gothic or Greek, but it is rather a sister of IE. Hittite on this view is the aunt or elder cousin of ancient IE languages like Sanskrit Greek and Latin. They put forward INDO-HITTITE as the *common source* of PIE and H. The relationship is best shown by the following table:



This hypothesis is not yet universally accepted, by scholars but, it must also be remembered that no alternative explanation

is yet put forward to the Pre-Hittite. Once the relation is firmly established, it will doubtless help us in solving many problems arising in the historical study of the Vedas and the IE culture in the Middle–East.

DESCRIPTION OF THE HITTITE WRITING:

In the *Old Testament*, the Hittites are called the children of *Heth*. The land of the Hittites is mentioned in the *Old Testament* throughout as a land flowing with milk and honey (*Exodus*). Father Abraham purchased a field in which there was a cave, from Ephron, the Hittite, and his wife Sarah was buried there (*circa* 1872 B. C.). They are referred to as archers on horseback; and Ezekiel, the Prophet, tells Jerusalem: "Thy father was an Amorite and thy mother an Hittite". The great Hatti raid that broke the First Babylonian Dynasty took place about 1800 B. C. Three centuries later, Western Asia Minor was the Homeland of these Hittites (1500 B. C.). They are the name of several peoples mentioned in Old Egyptian and Assyrian inscriptions. They seem to have inhabited Palestine before the Hebrews, according to the *Encyclopaedia Americanna* (1945). Solomon was eager to form alliances with these people who had a kingdom, in his days, in North-Eastern Syria. The Egyptian and Assyrian hieroglyphic inscriptions and records give the following information: The Heta offered a vigorous resistance in North Syria to the Egyptian King Thutmosis III, (*circa* 1560 B. C.), and to his successors of the 19th dynasty, Sethos I and Rameses I and III, (*circa* 1200 B. C) Hatti of the cuneiform inscriptions frequently fought with the Assyrians from 1100 B. C to 700 B. C. after which they are heard no more. Thus this Ancient Oriental people were the rivals of the ancient Egyptians and the Assyro-Babylonians in the game of welt-politik. They overthrew the first Babylonian dynasty, coming as they did from the Taurus mountains in Asia Minor. The assumption that the Hittites were also called the Hyksos who were the

Shepherd kings and who seized the throne of Egypt (1800 B. C.) is not seriously challenged.

THE BOGHAS-KÖI DOCUMENTS

These are Royal Archives containing treaty records (dating about 1400 B. C.) of the Mitanni people. They were, as is stated above, unearthed by the Berlin Assyriologist, Hugo Winckler at 145 Km. east of Angora. The Babylonian language and script were used in diplomacy in ancient international affairs. It was a kind of ancient oriental French. But the Hittite archives are in Hittite language, written in Babylonian cuneiform writing and at places take the aid of the heiroglyphic mode of the Egyptians.

FREDERIC HROZNY

The romance of this linguistic discovery centres round the figure of Professor Frederic HROZNY. HROZNY got a clue to the Indo-European character of the Hittite language from the discovery of a Hittite *present participle* ending in-*anza* in the Nom. sg. masculine and having -*ant* and-*and* in other cases. (cp. Latin *ferens, ferentis* Gr. *pheron, pherontos*). He also compared case endings of Hittite nouns and found counterparts more or less precise for them in IE languages :—

Hitt	*khuman-za* = all. IE	Lat.
Nom.	*khumanza* *s*	*ferens*
Gen.	*khumandash* *sya*	*ferentis*

Hittite '*attash*' Father, has for its acc. *attan* (cp. Sk. *rāmān*).

The Hittite word for *water* is *vadar*. HROZNY'S most important clue is supplied by the declension of this word. He found the word in the Hittite sentence :

nu ninda-an ezzatteni, vadar-max-*ekutteni*.

Now here the meaning of the Sumero-Babylonian ideogram *ninda*, (bread) was known. *Nind-an* was therefore clearly interpreted as acc. sg. of a word for bread. Bread is to be

eaten, and thus *ezza* clearly means 'to eat.' So also *ad, adanzi* (they eat, in other places). Compare Latin *edo* OHG *ezzan* and E. *edible,* Sk. *ad,* to eat. Other passages showed that *teni* is the ending of the 2nd pers. sg. Now HROZNY naturally thought that after eating bread the Hittites were in the habit of drinking water. And H. *vadar* gives rise to a surprising comparison with Eng. *water* O. Saxon *water.* The Oxford Dictionary gives the following sources for the modern English *water*:—OE *wœter* G. *wasser* Gk. *hudor*; L *unda,* wave; with which I suggest a further comparison of Sk. *udan, samudra* and *adbhyaḥ.*

The remaining part of the Hittite sentence is *ekutteni.* Here the stem is clearly *eku,* drink, compare Latin *aqua.* The whole sentence paraphrased in current INDO-EUROPEAN would run as follows:

Now (nu) *you eat bread*; *further you drink water.* In Hittite *vadar* is declined as follows:

sg.

Nom.	*vadar*	Dat. loc.	*vedeni*
Acc.	*vadar*	Abl.	*vednaz*
Instr.	*vedenit*	Gen	*vadenash* (cp. Lat. *femur, feminis*).

eku, ekuzi, he drinks, cp. Tocharian *ma jokalle* = one should not drink.

PRONOUNS

Professor HORZNY also established resemblances between the Hittite system of pronouns and the Indo-European pronouns:

	Hittite	Latin	Greek	Germ.	Dutch	Gothic	Sanskrit
1st person sg.	*uga* = "I"	*ego*	*ĕgō*	*ich*	*ik*		*aham* (OED)
	amugga "to me"	*emege*					

* cp. IA. and Mar. *amuk* and *tamuk* and Sindhi *mokhe* and *tokhe.*

	Hittite	L.	Gr.	Ger.	Dutch.	Goth.	Sk.
2nd person	*zig, ziga* = "thou *tug, tuga* = "to thee"		*σĕgĕ*			*thuk*	Sindhi *tokhe*
1st plu	*vesh* = we			*wir*		*weis*	*vayam* (OED)

kash = this Oscan *ekas*

shash = he *Sah*

Kuid = Lat. *quid* Vedic. *Kad*

Kuvabikki Lat. *ubique*

The Hittite verb was also proved to have resemblances with Indo-European verb-declensions : I give an example from Prof. HROZNY'S tables—

Hittite	Skr.	Gr	Common inflexion
1st Pers. *Jami* = I make	*Yami* = I go	*tithemi*	*mi*
2nd Pers. *jashi*	*yasi*	*tithes*	*s, si,*
3rd Pers. *jazi*, plu *janzi*	*yati*, plu. *yanti*	*tithensi*	*zi, ti*

The imperative in *u, tu,* is also found in Hittite as in Indo, Irāṇian : *berot-u.* The medio-passive form has fequently an *r* ending, resembling similar forms in Latin, Indo-Celtic and Tocharish. The 2nd person plural *jadduma* resembles Sanskrit *aharadhvam* and Old Avestic *mazdazdum.* The Hittite had verb stems in – *shk* and – *nu* ; eg.

dashk-ishi = thou takest cp. L. *posco.*

arnu-mi = I send for.

From this correspondence, these similarities of grammar and structure PROF. HROZNY reported to the German Oriental Society in 1915 (No. 56), that HITTITE was an INDO-EUROPEAN tongue. His Hittite Grammar was compiled and published in 1916. He showed from the Hittite treatment of the gutturals that it has a greater affinity towards the WEST INDO-EUROPEAN

Languages of the so-called *kentum* group rather than towards the Indo-Irāṇian group of Indo-European.

From this simple treatment of this subject which would be easily grasped by the popular imagination, let us now turn to the more scientific aspect of our study.

We gather from STURTEVANT'S *Comparative Grammar of Hittite* (1933) that the museums of Stamboul and Berlin divide the clay tablets of Boghasköi. The literature in Hittite found so far is considerable, and contains a *Treatise on Horsemanship* and on how to tame and train a wild horse. The Treatise is in the Indic Court Language of Mitanni.

When we want to compare a new or old but unknown language and state its relationship with a language that is known to us already, we are required to refer to the following elements: Phonology, Declension of Nouns and Adjectives, the system of pronouns, the conjugation of verbs and morphology. In the following pages, we shall compare these elements of the Hittite language with those of the Indo-European. This will enable us to realise its Indo-European character. I am indebted, in this brief resumé of the subject, to Dr. S. K. CHATTERJI'S lucid account of Hittite in the *Indian Culture*, Calcutta, Vol. VIII No. 4, where we have an authoritative and and recent summary of the position from the pen of the Doyen of Indian linguisticians. I have also drawn upon STURTEVANT'S *Comparative Grammar of Hittite* (*1933*) wherever necessary.

VOWELS

The HITTITE has the vowels that Indo-European has. Thus there are the following vowels: *a e i o u* long and short; and there are diphthongs both long and short as in IE. But the following variations are to be noted. The whole position regarding the vowel system may be summarized as follows:—

(i) *a* remains unchanged in Hittite: Hit *harkis* = white or bright Sk. *arjunas* Gk. *argos*; Hit *saklais* = low L. *sacer* = sacred OE. *seht* = treaty.

(ii) *ā* remains in Hittite. Hit. *tyezi* = steals, Sk. (s) *tays* = thief. Hit *arha* Sk. *ā́rāt* = away. H. *mema* say, Gk. *memnaimi*.

(iii) *e* remains, except before *r* + consonant: H. *esmi*, *eszt*, Lith. *esmi*, *esti* (*i*) = am, is. H. *eshar*, Sk. *asṛk* blood. H. *hwekzi* Sk. *vakti*.

H. *esmi*, Sk. *asmi*, Lith *esmi* = am, L *est* = is; H. *eszi*, Sk. *asti*, (inter–) *est*; H. *eshar*, Sk. *asṛk*; H. *hwezi*, Sk. *vakti*; H. *hweszi* = lives, Sk. *vasati*; *wisan* = dwell OE *wesan* = be Mod. Eng. *was*; H. *Kwenzi* = kills, Sk. *hanti*; Ch. sl. *zena* = drive; H. *neya* = lead, Sk. *nayati*, Av. *nayeiti* = leads;

H *nepes*, Sk. *nabhas* Gr. *nephos* Lat. *nebula* IE, Ch. sl. *nebo*, sky. H *wekzi*, Sk. *vaṣti* asks, desires, wishes; H *trepzi* Sk. *trapate* ploughs, is embarrassed; H *septamas*, Sk. *saptamas*; H *seszi*, Sk. *sasti* = sleeps.

ABLAUT

The HITTITE vowel system is a simplification of the *Indo–Hittite* vowel system, (Indo–Hittite = IH hereafter in the article). The change of vowels is therefore not easily perceived, and seems to be obliterated. This should not, however, lead us to assume that the *ablaut* distinctions do not occur in HITTITE. IH **ertori* (from *er* to move) gives *ore*, *vreuti* in IH but yields *artari*, *ari* and *arnuzi* respectively in HITTITE. But *ablaut* is seen in the plural of these words: *erteni* and *erwen*. IH diphthongs *eu*, *ou*, *ū* and *u* = Hittite *u*; ablaut being possible only in the long diphthongs or when followed by a vowel. The most important ablaut variations are:

ēser	= "be"	*eszi*	*a*sanzi
ēter	= "eat"	*etmi*	*a*tanzi
		peskezi	*p*eskanzi

nai	= "lead"	*nais*	ney*a*nzi, nest
westen	= "clothe"	*wasanzi*	*usiyanzi*
ekuzi	= "drink"		*a*wkw*a*nzi

PRONOUNS

HITTITE has four fully declined pronuns: *uk* = L. *ego*, *zek* = L. *tu*, *wes*, G. *wir*, L. *nos* Sk. *nah*, and *sumes*, L. *vos*, Sk. *yushmed*.

Pronouns occur in all texts in prepositional phrases: *Kateme* = 'with me'; *starnesme* = 'among them'.

HITTITE preserves only a minority of case systems for pronouns found in IE. It would seem that IE started the process of completion of the case system after its bifurcation from PRIM-INDO-HITTITE.

The personal pronouns in Hittite are:—H *uk*, Eng. *I*; H. *wes* Eng. *we* G. *wir*. H *amuk*, *me*; *anzas* us H *zek*, Eng. *you*; H *tuk* Eng. to *you*; H *anzel* = *us*, Sk. *asmat*

An example of the declension of the first personal pron. *uk* = I would be interesting:—

Nom: *uk* sg. *amuk* pl. (cp. M. *amuk*); Acc: *amuk*; gen: *omel*; dat: *amuk*; Abl: *ametaz*.

Hittite seems to be deficient in plural noun declension. They had a general plural case *humandaz* = all.

Hittite – *as* = "is" contains the pronominal stem which is found in Sk *asya*. Similarly, STURTEVANT has proved that Sk *tasmin* comes from INDO-HITTITE *to-smi*.

REDUPLICATION

Reduplication is fairly common in Hittite, and it belongs to nouns as well as verbs: H *kwis-kuris* = L *quis-quis*. H. *awkawkas*, = frog, is imitative, perhaps. For *Karsikarsiyaz*, 'in very truth' cp. M. *Kharokharac* or Guj *Kharekharaj*; *tutumes*, become deaf; *Kuskuszi*, he mixes cf. Mar. *kuskar*;

Pali *galagalayati*, Eng. *singsong, dingdong*. Sk. *Kalakala*, Mar. *phalphalaval* and Eng. *mumur* are easy to recall. Similarly, Hit. *kalkalture*, a musical instrument.

VERBS

The behaviour of verbs in HITTITE shows many points of contact with their behaviour in IE (a):—They admit of prefixes like *apa, awan, kata,* and *peran* whose general similarity to IE prefixes is obvious. The following HITTITE sentence explains this clearly:

Kururimu peran kata nata kwapiki tarnas.

She did not at any time surrender me to my enemy.
The H. prefix *pa* corresponds to Sk. *abhi* Lat. *amb* e. g. H. *pe - hutezi* = bring.

REDUPLICATION

(b) Reduplication occurs in H as in IE and gives us the intensive of the verb stem: *kat-kat-enu* = bathe; *lah-lah-inu* = cause to fight (cp Hindi *larhna* = fight). Other examples of reduplication are *papars* = sprinkle, Sk. *vavarṣa*, Czech *preste* = rain; H. *titiya* = assign Sk. *tisthati* from *stha*.

MOOD AND TENSES

(c) There are two moods and two tenses in Hittite (Present future and preterite and the indicative and imperative). There are two Infinitives of which one is active; the other is weak or intransitive. There is also a participle and a supine in *tai*.

(d) Further, there is a causal or causative. (e) an iterative-durative (f) the perfect and (g) two more tenses with the auxiliary *hark* = have. (h) There is also a medio-passive which appears to be equivalent to the active.

Thus the semantic system is very simple. But the variety of forms brings in complications. Conjugations in the main,

are two: (a) *mi* and *hi*. The one (a) corresponds to the IE present and aorist systems and the other (b) to the IE perfect system.

The HITTITE verb is more *archaic* than the IE verbs. Nonthematic root verbs are more frequent in IH than in IE.

The Hittite verb has two numbers only and many times a singular verb is used after a plural subject. Here the mathematical agreement between the numbers of the subject and predicate found in IA is conspicuous by its absence. Compare behaviour of verb in IE which seems to be different from that in IA.

The familiar three persons of the IE are present in Hittite.

HITTITE first person plural is *meni* after *u* sound and *weni* after any other sound. Compare Sk. *vahi* and *mahi*. *weni* and *meni* are *was* and *mas* transformed by the influence of 2nd person plural *teni* which corresponds to Vedic *than*.

Third person plural of the present is *anzi* in Hittite. Compare IA *anti* – *onti* and – *nti*.

PRETERITE

(a) Preterite first singular of *mi* conj. ends in *un* for consonant stems and *nun* for vowel stems: *e. g. Kwenun* = I slew Sk. *ahanam*. (b) 2nd pers. sg. ends in *s e.g. taskes* = you took. (c) 3rd pers. sg. always ends in *t e.g. henkt* = he determined. (d) Plurals are *wen, ten, er*; the singulars being *un, s, t*.

IMPERATIVE

lu, and *alu* are the terminations of the 1st person; *e.g peskelu* " I shall give", *memalu* " I shall say ".

The 2nd person does not have any termination as frequently in IE and Sk. parsmaipada *e.g. nenk* = rise.

There is some connection between H *t* and IE *dhi*. Ṛgvedic verbs take *hi* or *dhi* in 75 per cent cases. So H. *i* = to go, *it* go, you. *arnut* = bring you.

The 3rd person is easily recognized as IE. 3rd person in *tu* and the plural is *antu* as in IE. e.g. H *aktu, saktu, talestu.* plural *kunantu* = Sk. *ghnantu* = Let them kill.

Here we have *et* to eat declined :—

Present singular Sk.		Pr. plural sk.		Pret.
etmi	– *mi*	*atweni*	– *wahi*	*mazt*
mazti	– *si*	*azteni*		
ezzi	– *ti*	*atanzi*	*ante*	*ezt.*

Imp. sg. *et,* Sk. 2nd person sg. of Imp. termination is *nil* Present participle *atanz.* (Sk – *an,* and OE pr. p. in – *an* Mod. Eng – *ing*).

Verbal nouns are formed with the participal suffix *nt* corresponding to Lat. *tus.* Infinitives end in *wanzi, manzi.* Also, genitives of verbal nouns in *war* and *mar* are used as adnominal infinitives.

Thus, the HITTITE verbal system is simple, whereas the IE verbal system, with its moods and tenses is complex. IE has many innovations like the simple and the periphrastic future and the system of aorists.

That the Hittite is an *archaic* language is proved by its (1) retension of *h* (2) distribution of *m, n,* (3) retension of *tst* dental (4) the presence of *ku* instead of a labial (5) by the absence of the feminine gender (6) the frequency of non-thematic root verbs (7) by the simple and oblique pronominal declensions (8) by the presence of nouns in syllabic *r̥ n̥* and (9) its ablative in *ts.*

There are lexical archaisms *e. g.* H *nekuz* IE *nokt.* H *eszi* he sits, *esa, esari*; Skt. *āste* Gr. *hēstaî,* he sits.

PHONETIC CHANGES

(1) INDO-HITTITE *h* is lost in INDO-EUROPEAN. (2) *k, kh, g, gh.* are palatalized.

Some remarkable words and forms establishing similarity or agreement of phonology and morphology are given below :—

H. *e-ku-zi* = he drinks. IE. L *aqua*;

H. *kuranzi* = they cut off, IE. L *cultus*

H. *nekumanza* = naked,
H. *nekuz* bed taim,
H. *nekuzi* "undresses, i. e. goes to bed,"
H. *nekutat* 'it was bed time'

IE. Gk. *gumnos* Sk. *nagna*;
IE. L. *noktes* Sk. *naktam*, Gk. *gumnos*;

H. *kunanzi* = they strike, IE. Sk. *ghnanti*;

H. *tekusami* = I show, IE. Sk. *diśāmi* Eng. *teach, token*;

H. *hwek* = conjure, Lat. *vox* Sk. *vakti-uktah*; Gr. *epos* I.E

H. *kwrezi* = cut off flesh. Sk. *krurah – kravis* raw Gk. *krepas.*

Ind–Euro. *h, g, gh, kh* = H. *k*, simple and lean.

H. *kemanz* Sk. *hemanta* Gk. *cheima* Lat. *heims* Czecho-slav *zima*

H. *krap* Sk. *grabh* Eng. *grab*;

H. *laki* Ch-slav. *lezati*, Eng. *lazy*;

H. *talukaes* (pl. da-lu-ga-e-es), long, Sk. *deergha* Gk. *dolichos*;

H. *parkus* Sk. *bṛhant* Av. *berezent*;

H. *teepu* = small, Ved. *dabhra*;

H. *ueikzi* = Sk. *vashti*, asks, desires. Eng. *ask*;

H. *taswanz* = blind Ved. *tamisra, tamas*; Lat. *tenebrae*;

H. *akukalet* = water-pourer, pitcher; Sk. *galati*, drips, *kalaśa*; Eng. *chalice*;

H. *mehur* = point of time, Sk. *muhuh*, *muhūrta* Mar. *mahorat*;

H. *pankus* = all, whole, populace; Sk. *bahus* Gk. *pachus* = thick;

H. *palhis* = broad; *palhan* a kind of dish; Sk. *pṛthu*;

H. *arsaniya* = envy Sk. *īrśyā* Av. *ardśyant* OE *eorsian* M. *īrśyā*.

H. *laman* = Sk. *naman* Gk. *ŏnoma* Lat. *nomen* name, Sindhi. *nalo*, M. and Hindi *nāma*,

H. *paszi* = Sk. *pāti* L. *potus* Gr. *pósis*.

H. *hastai* = Sk. *asthi*, Gk. *osteon*, Lat. *os* = bone;

H. *stamar* Gk. *stoma* Av. *staman* = mouth of a dog;

We give below an example of noun declension in H.

Antuxas = man

	Terminations		Terminations
Nom.	*antuxsas as, s* (IA *s*)	Loc. Dat.	*antuxse se* (IA a *smai, smin*)
Acc.	*antuxsan an* (IA *am*)	Abl.	*antuxsas as, s*
Instr.	*antuxset t, ta,* (IA *ā, ena*)	Gen.	*antuxsas as, s* (IA. *s, sya*)

In Ved. *sureduhita* = *suras duhita*; daughter of the Sun, we see nom. and gen. is the same.

There are *ṛ* and *ṇ* stems which are irregular, and they can be compared to the irregular stems in Sk and Gk. For example

Sk. *asṛk* = blood gives gen. *asnas*
,, *yakṛt* = liver gives *yaknas*
Gk. *hepar* ,, gives *hepatos*

Compare H *esXar*, blood gen. *esXnas*
,, *stamar*, ear gen. *stamanas*
,, *kutur*, neck gen. *kutanas*
,, *paXur*, fire gen. *paXunas*

Below are given some words for comparison.

H. *ep* = IA *āp* = get, obtain; H. *harp* = Sk. *arpaya*; H. *lip* Gk. *lipos* = fat, smear Sk. *lip, limpati*; H. *titanu* Sk. *stha – tistha*; H. *mekis* Gk. *megas*, Eng. *mickle*, Sk. *mahas*; H. *wet* Gk. *etos* year, Sk. *vatsa, vatsara*; H *tarup*, plait, assemble; Lat. *turba* Gk. *tarbe*, Eng. *thorp* H. tarpesar, assembly

MISCELLANEOUS

H. *lutas* = luk = window cp. Eng. *lattice*; H. *alis* = white H. *alpas* = cloud, Lith. *alvas*, Lat. *albus*; H. *anas* = mother, *hanas* = grandmother Gk. *annis*; H. *arwa* = pray, Gr. *ara*; H. *harkis* = light, bright Gk. *argos* shine, Sk. *arjunah*;

There is no feminine gender in Hittite; but only masculine and neuter genders are found. This corresponds to the incomplete gender in IE dialects.

The foregoing study of the nature of the language of the Boghasköi Archives will make it abundantly clear that the Hittite language is one of the oldest of the Indo-European languages so far discovered. Its phonology proves that it is *archaic*. "It is a strangely simplified and attrited language" (cp. *k* for IE *k, kh, g,* and *gh*). There are some words in the Archives for which we cannot give ARYAN roots; they may be non-INDO-EUROPEAN loan words borrowed from territories conquerred by this powerful people. Some words are definitely Assyro-Babylonian or Sumero-Akkadian in orgin (*khabalu* = to destroy, for instance and *pir* = *per* which is of Egyptian origin, from which we have *pharaoh*; *nimkhutun* = woman, is Khattish.) The H. language was associated with the languages of Asia-Minor for about a thousand years. It is probably the Assyro-Babylonian colonies of Asia Minor who gave them many religious and cultural goods, and the most important gift they received was the art of cuneiform writing from their newly conquerred subjects.

HROZNY'S discoveries were not ungrudgingly accepted by scholars. But step by step the sceptics were silenced and in 1920 F. SOMMER declared "Hittite to be, by its flexional structure an Indo-Germanic language." S. FRIEDRICH became a warm adherent in 1924.

The Boghas-köi records contain another big surprise. The Hittite rulers call themselves *Maryani* (Ved. *marya* = man). They worshipped *In–da–ra, Mi-it tara, M-ru-waṇa* and *Na–sa–at–at–tiyas* which are just the names of the *Rg. Vedic* Gods *Indra, Mitra, Varuṇa* and the two Ashwins written in Babylonian syllabic writing. The tribes speaking the Hittite language and writing in the same language but an adopted script were clearly Indo-Aryans, N. D. MIRONOV regards the language of these documents *anterior to that of* the Vedic speech (*Acta Orientalia*). The names *Simalaya, Suwar· datta* and *Aitagma* show that the *Pre–Vedic* diphthong *ai* is preserved in Hittite as well as the *pre-Vedic zh* and *z*. The state Archives also contained glossaries or *Vyavaharakośas* (like the Rājyavyavarakośa made by Śivaji in later times!) from which it would seem that the compilers know six contemporary languages.

In 1937, Prof. HROZNY printed a French translation of Hittite heiroglyphic Inscription of king *Varapalava* of *Tuvana. Tyana,* which when Englished runs as follows :

'The King Varapalavas of Tuvan-Tyana, had planted, as he was then a prince royal, a garden, which was, as it appears, dedicated by his grand-father, Valu-Dadas (?) to the God SANTAJAS (?). On this occasion, Valudadas had offered a libation to God Santajas. Later, Matusa, father of VARPALAVAS made in his turn, a similar libation when he became king. Undoubtedly, Varpalavas also offered a libation to Santjas; he prayed the latter to be protected by the bearer of the double axe i.e. by the statue representing Santajas.'

In the Hittite-Mitanni treaty between Śubandhu son of Tushrata and Śuttarṇa son of Artatama, the gods having names similar to the Vedic Gods *Agni, Indara, Teshub* were witnesses. Their chariots were of *aik-vartanna, tera-vartanna, panza* (panca) *vartanna* and *shahota-vartanna* turnings. (—CHAKRABERTY).

(This is a restatement of our present knowledge of Hittite language and literature based upon authoritative but cautious recent accounts by scholars like Dr. S. K. CHATTERJEE, Dr. R. N. DANDEKAR, and Dr. STURTEVANT).

APPENDIX II

IE URHEIMAT IN THE NEW PERSPECTIVE

INDIAN HISTORY NOT AN ISOLATED PHENOMENON

The fact is now being gradually realised that Indian history is actually more ancient than some historians believed it was. In fact, it even goes beyond the Stone Age. Moreover, it is a part of world-history and not an isolated phenomenon. Our most ancient recorded period has therefore to be studied in this larger world-context; the Vedic period itself can now be studied in relation to other periods in world history.

MANY IA SPEAKING CULTURES

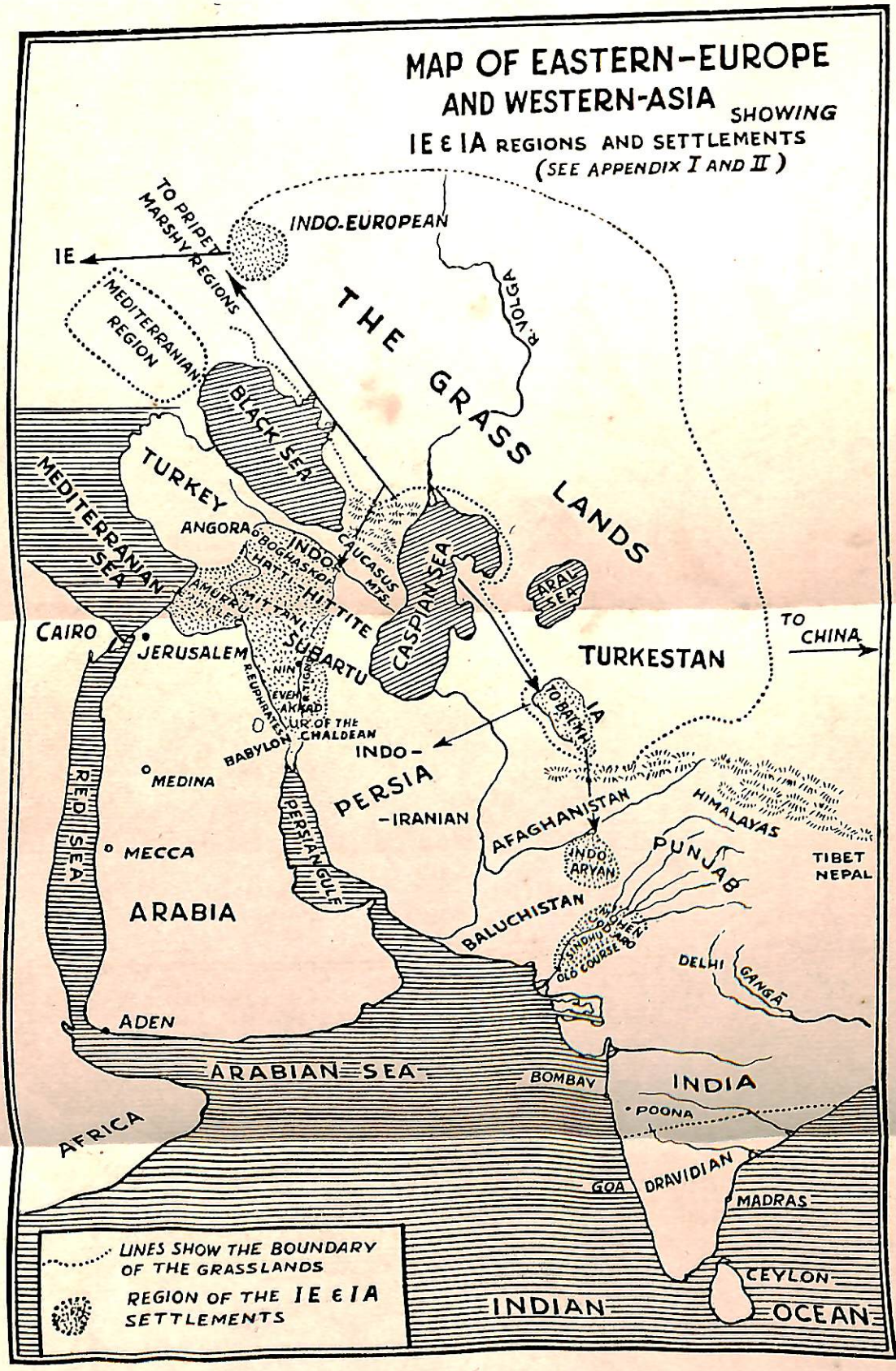
Vedic language and culture are not an isolated event-sequence. They are connected with other IA speaking cultures which had their origin and home in regions between the Volga and the Ganges. IA culture out-side India has a bearing on IA culture in India.

INDUS VALLEY CIVILIZATION

The civilizations of Harappa and Mohenjo-Daro are no longer mere abstractions. It is now realised that they yield whole city-fuls of evidence and data. The relations of Vedic culture to this can now be studied with great accuracy. Here as elsewhere Philology and archeology must go hand in hand; if this does not happen our conclusions may remain wide of the mark.

MANY LAYERS IN VEDIC LITERATURE AND CULTURE

Vedic literature itself is a stratified literature: *i. e.* there is evidence in it of many layers of development from the most primitive type of culture to the most highly organised types of


MAP OF EASTERN-EUROPE
AND WESTERN-ASIA
SHOWING
IE & IA REGIONS AND SETTLEMENTS
(SEE APPENDIX I AND II)
TO PRIPET MARSHY REGIONS
IE
INDO-EUROPEAN
MEDITERRANIAN REGION
THE GRASS LANDS
R. VOLGA
BLACK SEA
TURKEY
MEDITERRANIAN SEA
ANGORA
BOGHASKOI
HATTI
INDO-HITTITE
CAUCASUS MTS.
CASPIAN SEA
ARAL SEA
AMURRU
MITTANI
SUBARTU
CAIRO
JERUSALEM
NIN
EVEN
AKKAD
UR OF THE CHALDEAN
R. EUPHRATES
BABYLON
TURKESTAN
TO CHINA
TO BALKH
IA
INDO-PERSIA
-IRANIAN
MEDINA
RED SEA
MECCA
PERSIAN GULF
AFAGHANISTAN
HIMALAYAS
INDO ARYAN
PUNJAB
TIBET
NEPAL
ARABIA
BALUCHISTAN
SINDHU
OLD COURSE
DELHI
GANGĀ
ADEN
ARABIAN SEA
BOMBAY
INDIA
POONA
AFRICA
GOA
DRAVIDIAN
MADRAS
CEYLON
INDIAN OCEAN
LINES SHOW THE BOUNDARY OF THE GRASSLANDS
REGION OF THE IE & IA SETTLEMENTS

social life. All phases of the historical situation are progressively reflected in it. From nomadic life to aristocratic and monarchical organisation, from pastoral communism to class-struggle, every phase of historical experience is in evidence in Vedic Literature. On the religious side we have the religion of magic and the religion of monism and the whole gamut of religious institutions from witch-craft to organised priest-craft. In short, Vedic literature holds the 'mirror up to nature, and shows the age and body of time his form and pressure.'

Though Vedic culture is homogeneous it is not exclusive. Non-Aryan elements have crept into it in the form of the impact of the Vrātyās, the Sūdrās and the Dāsās.

Vedic Kings and Princes

The history of the Vedic Kings and Princes again is related to the history of extra-Indian kings on the one hand and with the Dynastic lists of the Puraṇas on the other, so far looked at with some suspicion by the Indologist. The date of the Mahābhārata war is now presumed to be 1428 B. C. (Dr ALTEKAR). The Dāsarājnya Yuddha took place in 1900 B. C. The date of Gṛtsamada is now fixed at 2700 B. C. and Śrnjaya Sahadeva's date is 2000–1800 B. C. Now the relation of the Vedic period to the MBh war can be explained, its antecedents and consequences can be studied with a greater amount of confidence than was available up till now.

Four Points to Fix up

Vedic Aryans were a branch of the Aryan speaking people. Where was the original home of these Aryan speaking-people? Who were the Hittites who built up an Empire in the Middle East? When did the "migrations" of the Aryans begin? Did they go out in batches and where did they have their colonies in ancient times? What is the relationship between the Aryan Indians and the Iranians?

ARYAN, NOT A RACE, BUT A CULTURE

Thousands of Aryan words are now reconstructed by Philologists. The search for the Urheimat is not therefore likely to be futile now. Moreover, archaeology and anthropology can always check up the guess-work of the mere linguistician who is notorious for his wild-goose-chase. So first let us deal with the problem: the Home of the Aryans.

We must disabuse our minds of the race theory at the outset. Max Muller's dictum 'thought is thicker than blood,' should be followed in all such discussions. Aryan is that Aryan does. The idea that Aryan was identical with IE as a superior race is untenable. The words for Arya in the various languages do not give us the impression that they were regarded as a race. Celtic has two words *ariovistus* and *ariobriga*; Germanic has *ariobindus*; Ved *Arya*, Irāṇian. *Airya*, *harri* (cf the Mitanni records). Aryan does not represent a biotype; the tall bright-coloured blue-eyed blondes, born out of the European *milieu*, of the pet theory, has no place in such scientific discussions. This theory has bred the race complex which produced a Hitler in Europe. But the myth of the Nordic Race is now buried by DIXON and CHILDE. It is now being said that the Nordics themselves were not a pure race. Blondes are found outside Europe, as well. RIPELY in his *Races of Europe* says that the size of the skull and the power of the mind do not always vary directly. Very often they may be found to vary inversely. The custom of burying the dead, again, cannot, according to CHILDE, be identified with a single ancient race but seems to be common among many peoples.

IE IN EGYPTIAN SCULPTURE

IE therefore in this discussion does not indicate a race but the language of several races. It is not an ethnological term. It has been said that even all the Nordics were not blondes.

Some of the IE speakers are actually represented as dark. Egyptian sculpture of the 2nd half of the second millenium shows IE speakers as bracy-cephalic. On the 8th Century (B.C.) column of victory of Tiglat Pilesar IV of Assyria, IE are represented as dark coloured men.

The Hittites and their Language

The speakers of the Hittite language mainly belonged to the Armenoid race. In sculpture they appear to be broad-skulled, long-nosed and middle-sized men. They were hefty and well-built. The conclusion is irresistible that there was no IE race, as such, but a culture-group consisting of men belonging to many biotypes-Nordic, Alpine, South-European, and Asiatic-Mediterranean. Even the Indian caste system is not based upon any theory of racial superiority. It is a division of Society based upon the principle of division of labour and aims at making merit, work and worth rather than birth or wealth, the criterion of social virtue, earning a status for the individual.

Ur-heimat : theories old and new

There are many theories regarding this very knotty problem. (1) The Arctic home theory supported by the late Lok. Tilak and more recently by Dr. Taraporewala is now receding in-to the background as the astronomers are divided among themselves over some calculations. (2) The Indian Home theory has many adherents and their number is on the increase since Aug, 15, 1947. There is no clear and unmistakable reference to the Aryan's migrations from India on a very large scale. The Vedic Aryans on the contrary are known both to history and tradition as foreigners having a God whose name was '*Purn-dara-breaker of forts*'. (3) Kossina's theory (*Die IndoGermanen,* 1921) of the Aryans as the Supermen of History, the Herrenfolk of the World which they must conquer for its benefit—going out of Germany with their

battle-axes and riding in horse-drawn charriots and carrying with them chalices decorated with impressions of whip-chord is more appropriate to the race that produced Hitlers and Mussolinis than to the Aryan whose soul-thirst for peace is expressed everywhere in the literature that he has produced. (4) Dr. Giles thought that Hungary was the cradle of the IE culture as the custom of cremation has existed in Hungary from hoary antiquity. Secondly, Hungary was the ideal country for cattle and sheep breeding. But this is not supported by archaeology. Moreover in early Danubian culture there are traces of the worship of the Mother-Goddess, which is clearly not an Aryan characteristic at all.

Environment of IE

The picture of the early environment of the IE as reflected in the language is more useful. Clearly the early IE were a nomadic people; otherwise no-body would speak of their movements or migrations. Early IE speech shows three influences (1) The influence of Mesopotamia is seen in *aster* Akkadian *ishter* and IE *parasu* goes back to Assyrian *pilekku*. IE *guos* derived so far from Sumerian *gu-(d)* is now said to be derived from Altaic *kuos*. This gives us the zone of the influences on IE Languages and people. Reduced to geographical names the zone is between Ural and Altaic Mountains to the North of the Caspian Sea *i. e.* the North Kirghis Steppes. The horse is peculiarly Altaic in origin, and the animal figures prominently in IE history. W. Koppers in his detailed study of the Horse sacrifice (Pferdeopfer und Pferdekult der Indogermanen in *Die Indogermanen und Germanen frage*, Wien 1936 pp 279 *et seq*) has discovered some proto-Turkish and Mongolian traces in this.

Flora and Fauna

It would seem from the fore-going that the flora and fauna of the North Kirghis Steppes provides the proper IE

back–ground. The cow and the horse are germane there. The Zoologist AMSCHLER is inclined to hold the same view. A hilly tract is prominently indicated for the rearing of goats and sheep. The science of animal biology can throw some light on culture history. Early IE dialects show no words for the tiger, camel, leopard. So the deserts of Arabia and Sind could not have been the original home. Were there lime–trees in the "Ur–Heimat" to attract bees? Honey figures so prominently in early IE as *medu* but Dr DANDEKAR suggests that it may have been a kind of juice of berries rather than honey as we know it to–day. (*I. H. Congress Proceedings* 1947, p 36). HIRT'S beech–tree hypothesis meets with no better fate. It would seem that *beech* is a later addition to IE vocabulary for trees. There are no words in old IE for fruit trees. European flora was completely un–known to the IE speakers. The oldest speakers of IE were *not* agriculturists before they entered into Europe in the west or India in the East. The Proto–IE's main business was cattle–rearing, requiring them to be in the grassy regions, the Grasslands of central Eurasia. Specht is a great supporter of the Kirghiz Steppes as the home of the IE. His study of marriage customs, laws and religion is deep and penetrating. The plough of the IE times was also studied by him. His conclusions therefore cannot be easily refuted.

'*Kurgans*', graves, timber fences and red-ochre marks.

Archæological research lends its support to this view. V. G. CHILDE (*Antiquity of Nordic Culture*) is of the opinion that the IE in the earliest days used to bury the dead in single graves. A mound of earth dug form the surrounding ditch used to be thrown over them. Timber frames surrounded the graves. (See *Rg. Veda* X. 18·4 and 18·13). Now the Kirghiz Steppes are dotted by such *kurgans* or mounds, going back to neolithic times (BOGDANOV). The mark of red ochre covering the mounds is found on many mounds.

POTTERY AND STONE-BATTLE-AXES

In the northern Kirghiz Steppes were also unearthed Pottery articles with the whipchord design. EICKSTEDT'S Anthropological researches also support the view that the Kirghese regions were the Ur-Heimat of the IE. On these sites stone battle-axes (earliest type) were also discovered.

TWO OTHER REGIONS-BALKH AND THE BALTIC

Words for damp and rain increase as the IE dialects of the marshy regions are scanned. These West IE dialects are found in the Baltic regions. S. E. MANN summarised the linguistic evidence in *Man* in 1943: We do not find words for the tropical flora and fauna in the WIE-dialects. The main business was still that of cattle rearing: sheep, pig, goat, and dog are known to the WIE speakers. They could now make carts with wheel, axle, rim and yoke complete. They now ploughed the land, sowed seeds and reaped the harvests. They now seem to be living on regions higher than the grasslands. This would point to the Baltic region to which one branch seems to have moved from the Steppes. (MANN)

This would seem to be the secondary Ur-Hemimat. Primitive IE has no words for sea, fish, salt. Thus the linguistic evidence points to the Pripet Marshy regions. At least the Wesern IE settled there for a considerable time, arriving along the Northern coast of the Caspian Sea through South Russia. The Volga-Dniepper region also has to be belived to have been the secondary Ur-Heimat for similar reasons.

BALKH SETTLEMENT PRIOR TO THE BALTIC

But the South Eastern major migration seems to be prior to the Western migration. Balkh was not different in geographical and climatic conditions from the Grasslands. There is linguistic, archeological and anthropological evidence in support of this view. Graves with circular timber fences

were found in Balkh. Proto-Aryans separated earlier than the Proto-Europeans from the common stock. The proto-Europeans went to regions radically different in climate and geographical environment form their motherland. In his *Archæological Traces* of the *Vedic Aryans* R. von HEINE-GELDEN (JISOA 1936) argues as follows :—

The movement of the IE to IA regions must have taken place across Jaxartes and the Oxus. Balkh was the Ur-Heimat of the Proto-Aryans. There seem to have been two major and one minor movement of the PIE. There was a long period of living to-gether in the North Kirghis Steppes. From there, the Proto-IA moved to the southeast and settled in Balkh and the Proto-IE to the north-west and settled in the Pripet Regions and the Baltic. The third was a minor push of the Hittites in Asia Minor.

The dates of the various migrations in ancient times may be conveniently recalled here :—

The migration of the Proto-Hellenes to Greece	2200 B.C.
The migration of the Hittites to Asia Minor	2800 B.C.
The Proto-Aryan Separation from the Main-Stock	2600 B.C.
The period of Proto-IE Unity	3500 B.C.

THE UNFORTUNATE TOKHARIANS

The division of the IE dialects into *satem* and *kentum* is orthodox but not very valid (S. E. MANN : *The Cradle of IE-Speakers*, 1945). In actual fact Tokharian was a *satem* language. They seem to have been unable to decide-like Hamlet-whether to go east or to go west. Their language shows characteristics of both the IA and the IE groups.

THE HITTITE PROBLEM

The stages in the discovery of this Language and the people who spoke it are indicated by the names of the dis-

coverers themselves. KNUDTZEN and WINCKLER found out the documents. SOMMER, the Assyriologist of Munchen, deciphered them and the finishing touch was given to the discovery of that langugae by STURTEVANT whose grammar is now widely known. The material that is made available to us by this discovery is unusually abundant : We have more than ten thousand cuneiform tablets, being the state archives of the Chattri Empire; The Arzava letters at El-Amarna; Summero-Akkado-Proto-IA Dictionary.

Racially the Hittites were a mixed people of Mediterranean Armaneid *plus* Nomadic-Turkish origin. The archives give evidence of as many as 8 linguistic types. Here we shall give a brief account of the nature of the language.

The actual literature does not bear out the description of the Hittite language as a hybrid language. On the contrary, it has affinities with the IE, but to no special group either of the east or the west. It is not a Caucasian language, as some savants thought. It belongs to the *centum* group of the IE dialects. The plural number in Hittite is unsettled. Only traces of the dual are found. It has a peculiar H sound. The verb and case systems are simple. There are almost no moods and the number of tenses is small. Grammatical structure is that of the IE family. But the language is distinctly archaic or primitive in character (DANDEKAR).

It would seem that the Hittite speaking people separated from their Proto–IE speaking brethren about 2800–2600 B. C. There is no trace of the Hittites in the West. They must be believed to have settled in Asia Minor, coming across the Caucasus. (See map)

HISTORICAL FACTS CO-RROBORATE LINGUISTIC GUESS-WORK

It is a well known fact in history that the Hittites under Mursites I overthrew the dynasty of Hammurābi. Conquest of Babylon by the Hittites is dated 1760. But then there was

no feeling that they were foreigners in Asia Minor. Their entry there must have therefore been already a matter of ancient history. (2800–2600 B.C. is the date assigned to this). Their culture is clearly a mixed culture, showing Assyrian traces in it. Under Subbilulimus, the Hittites concluded a peace treaty with the Mitannis. The decline and fall of the Hittite empire begins from 1230 and after a few years they are heard no more. IE names occur in Hittite mythology. In religion they show parallels to the religion of the Minoan Greeks. In culture they are Babylonians.

THE KASSITES

About forty words are reconstructed by philologists from the Kassite's language. They show IE character with some guttural sounds nearer to Vedic sounds. Kassite names can be recognised as IE, or rather, IA names: *Surias* (Sk *Suryah*), *Marattas* (Sk *Marut*) *Suquamuna* (Sk *Sucamana*), *Abirattas* (*Abhirathah*). Kass. *bugas* at the end of names, Sk. *bhaga*. Therefore the Kassite language is a member of the IE, but nearer to Sk. The date of the Kassite conquest of Babylon is known to be 1800 B. C. They introduced the use of the horse for drawing chariots into the ancient Near East.

FORRER discovered a treatise on horse breeding and numerals similar to the IE in the Hittite documents. The names of the Mitanni Kings in the recorded Treaty are obviously Aryan : *Dusratta, Artasmara* and *Subandhu*.

The older generation of scholars like JACOBI, WINTERNITZ and HILLEBRANDT believed that the Indian soil was the place of origin of the Vedic religion. They held that the tribes migrated from India to the West. In evidence they cited the migration of the Vedic tribe of the Druhyus. Pargiter's faith in the antiquity of the Puranic dynasties seemed to strengthen this view. But now this view will have to be modified in the light of the new evidence that has been unearthed.

Mitanni (language) is prior to Vedic and Irāṇian. It is a *satem* language. In it *ṛta* becomes *ārta*. The Mitannis called themselves *Harris* i. e *Aryans*. Their warrior class was called *Maryanni*. They wore a pig–tail ; the *svastika* was an auspicious sign with them. Their burial customs were those of the Proto IE. They used inverted triangles as mystic marks. All this proves their IE or Aryan origin.

Vedic and Irāṇian similarities of language and culture are now well established facts. The Balkh region mentioned above was the first region occupied by the IA in the South East. It was here that the Proto–Vedic mantras were composed. Among the Vedic mantras there are two layers : in one layer the language is a living dialect. This was the time of the colony of Balkh, 2400 B. C. The second layer ended with the Samhitī–karaṇa by a priestly guild. At this point in their history (1900 B. C.) the IA had left the Balkh regions and were entering into the Punjab to meet the people who had created the Harappa civilisation, under a leader who worshipped a God, whose nome was Purandara, 'breaker of forts'. Before their coming into India the Aryans had evolved two types of Religious worship. The Indra cult was followed by the Aryans who came to India and the Varuṇa cult was followed by those who settled in Irān.

(For further details see Dr. R. N. DANDEKAR'S excellent restatement of the subject in his presidential address in the *Indian History Congress Proceedings*, Allahabad, 1947).

APPENDIX III

BRANDENSTEIN'S VIEW

A. B. KEITH has given a lucid resumé of BRANDENSTEIN'S views on the Home-land of the Indo-Europeans which appeared in the *Indian Historical Quarterly of Calcutta*, XIII, I, March 1937. A summary of Keith's article is given for the benefit of our young readers.

BRANDENSTEIN divides the history of Indo-European progress into two periods. In the first period the IE speech was homogeneous; dialectal differences were not formed. Roots and words retained their original meaning, without undergoing any change or expansion. The second period is a period of expansion. Roots and words, over and above retaining their own meaning, begin to develope newer meanings. This is illustrated by the following comparisons :

Indo-Irāṇian *gwer, gerau* 'stone'; Sk. ग्रावन् (*grāvan*, stone for pressing *soma* juice) grows into IE O. Eng. *cweorn*, M. Eng. *quern* = hand-mill for grinding corn. Sk. मृज् (*mṛj*) M. Eng. *milk*. Primitive IE root *sei* to throw a missile, Sk. अस्यति (*asyati, sāyaka* an arrow), but outside Indo-Iraṇian it also meant *sow* or *scatter seed* (Latin. *se-men*, German. *saen*, Eng. verb *sow*).

Similarly Primitive IE *mel* = to make weak (Sanskrit मल् *mal* to grind); IE *perkon*. Sk. परशुः or *paraśuḥ* = rift in the ground, Eng. furrow, (O. Eng. *furh*; Germ. *furche*).

From evidence derived from linguistics, BRANDENSTEIN holds that originally the Primitive Indo-Europeans lived in some comparatively dry rocky tract where there were no real forests, but only clumps of trees; and among the trees were the following: the oak, the willow, the brich, a resinous tree

and an elastic tree. There were no fruit trees. They knew the following animals generally: the ox, the camel and the ass. The Celts who were pushed back by the second batch of Indo–European settlers, the Teutonic races, have given only a dozen words to the old English language, *ass, bannock, binn, brock,* but not *curd, cart, gown* and *pony.*

The *cow* they obtained from the Sumerians who spelt it *gud* and pronounced it *gu* dropping the final *d,* (2700 B. C), from which the Primitive IE *gwous* Sk. गौः is derived. Also they knew the *sheep,* the *goat,* the *horse* and the *pig.*

Subsequently they arrived in a low marshy country, rich in flora and fauna, probably the Kirghiz Steppes, south and east of the Ural Mountains. The older stratum is represented by flat lands of Europe between Carpathian Mountains and the Baltic. Both the lexical and semantic additions to IE correspond with this new environment of the IE Urheimat.

There were borrowings in the earlier period from the Sumero-Akkadian world of Mesopotamia, but not from Western Asia, Egypt and Ægean Greece.

Professor Suniti Kumar CHATTERJI is inclined to call this " a reasonable theory, as it is in consonance with the soundest linguistic and archæological methods available to-day. The Eurasian plain, which was the habitat of the wild horse, would appear to have been the Homeland of the Indo-Europeans. For, the taming of the wild horse was the greatest single contribution of the Primitive Indo-Europeans now called the **Wiros* (Skr. वीरः *virah*) to material civilization. Before the second half of the third year thousand B. C. the Ox, the Camel and the ass were the only means of locomotion. The swift horse (ऐतग्व, *aitagava*) revolutionized international relationships. The swift horse was the gift of the Indo-Europan *Wiros* to world-civilization." After taming the horse, they started a movement for world domination and conquerred the world with their language and with their faith in final victory.

NOTE 1

The Greek Language (for Indian Students)

Indian students of Philology will find the following note on the nature of the Greek language and alphabet very useful. Sanskrit and Greek are dialects of IE and have much in common. A study of the brilliant little grammar, "*A new Introduction to Greek*" by Drs CHASE and PHILLIPS of the Harward University is strongly recommended. They have framed the lessons with a view to making the study of the language easy for the beginner. It does for Greek what Dr. Bhandarkar's books did for Sanskrit.

There are 24 letters in the Greek alphabet, and 22 vowel sounds (both short and long) and diph-thongs. They are given below in tabular form with a key to their pronunciation, at the end of this note. From the consonants, π, β, φ, μ (*p, b, ph, m*) are labials; κ, γ, χ (*k, g, x* or *ks*) are palatals; and τ, *s*, θ, σ, ν, λ, ρ (*t, s, th, l, n, r*) are linguals. Greek does not have the letter '*h*' though there is an aspirate at the beginning of words which begin with a vowel. If the '*h*' is to be-pronounced, the mark ' is written over the opening vowel to mark its sound. The mark ' shows-that the vowel or the consonant over which it occurs does not have any '*h*' sound. The mark ' is called the *spiritus asper*. e.g. (Gk. ἕπτο = *hepto*; ἑ = *he*; ὥρα = *hora*; ἅλs = *hals*-salt;). Mark ' shows that the initial vowel is not aspirated, and is colled *lēnis asper*.

Accent in a Greek word could occur only on any one of the last three syllables. It was a pitch accent, originally, but now a stress value is also given to it. There were three types of accents. The acute accent was denoted thus: ´; the grave accent thus: ` ; the circumflex accent stood only on long vowels

and diph–thongs and was shown thus:^. The last syllable in a word was called the ultima. Next to it came the penultima and next to the latter the ante–penult. Nouns had what is called a 'persistent accent' i. e. the accent of the nom. case persisted in all cases. Verbs had a recessive accent; i. e. going back from the ultima. Long vowels and diph–thongs made long syllables.

Number

Like Sanskrit, Greek had three numbers: singular, dual, plural.

Gender

There were three genders in Greek as in Sanskrit: masculine and neuter. *ā* is seen to be uniformly employed to indicate feminine gender. (νέός m. *neos, f.* νέα, *neā*). In Greek, names of trees are all in feminine gender. Grammatical gender seems to be crossed by natural sex in a number of cases. (Giles).

Cases

Sanskrit has eight cases, including the Vocative. In Greek there are 5 cases:—Nominative Genitive (showing possession, origin and separation)' Dative (which was a combination of the objective, locative and instrumental relations), Accusative and Vocative.

Voices

The Greek verb had three voices: active passive and the impersonal construction as in Sanskrit, (and Marathi) in which the subject acts upon itself or in his own interests.

There were seven tenses in Greek. They were classified into primary and secondary tenses.

Primary		Secondary	
Present	Future	Imperfect	Aorist–(Preterite)
Perfect	Future Perfect	Plue–Perfect	

There is reduplication in Greek tenses : *e. g.* Gk. *gegone* Sk. *jagāma*; Gk. *dedorka* Sk. *dadarsha* Gk. *bebhore* Sk. *babhāra*. Past tense and aorist were denoted by the augment ϵ, α, as in Sk. by *a*

Greek language was the only tie that bound together the different communities in ancient Greece. There were settlements of the Greek-knowing communities in the western part of Asia Minor and round the Black Sea as well as in the Balkan regions, and the Aegean Islands, including Crete and Cyprus, 2500 years ago. A common standard for writing and inscriptions was not arrived at until the 4th century B. C. This is known as '*coine*' and it spread over nearly all Attic Greece and the Near and the Middle East. After Alexander, Greek was divided into two branches. It was in the Alexandrian Greek that the Jews translated the Old Testament. Greek began to die out by the fourth century A. D. and it is said that even St. Agustine could hardly read Plato in the original. As we already know, Greek was driven out of Constantinople by the Turks.

Greek is, like Sanskrit, a building language, not a borrowing one like English or Marathi. It has given a vast number of words to the English language. Science is the greatest absorber of Greek words and pre-fixes and suffixes. The Greek supplies words to biology, psychology, physiology bio-chemistry and above all philosophy. English has contracted many long Greek words: Eng *alms*–Gr *eleemosynery*, which we come across in *Tom Jones* is contracted into *alms*, to-day. American *pep* is short form of Eng. *pepper* Gr *peperi* Sk. *pippala*! *Photo, auto, Maths* are being used by millions to-day without knowing, perhaps, that the words are derived from the language of Socrates and Plato, Homer and Sophocles!

BODMER has calculated (*Loom of Language*, 1945) that an average verb in Greek has 507 forms; in Sanskrit it has 743

forms ; Gothic has 94 forms while the English verb has usually only 4 or 5 forms ! Most Greek words can be recognized by the sounds of *ph, ch-k, rh* and *ps* where only *s* is pronounced. Another indication is the *oe* and the *y* sound.

The similarity between the declensions of Greek and Sanskrit verbs can be easily seen in such common examples as the following :—

	Active				Passive	
	Sanskrit	Greek	Eng.		Sanskrit	Greek
	dadhāmi	*didomi*	(I)	*do*	*dadhe*	*didomai*
Sg	*dadhāsi*	*didos*	(you)	*do*	*dhatse*	*didosai*
	dadhāti	*didosi* (*n*)	(he)	*does*	*dhatte*	*didotai*
	bharanti	*pheronti*		*bhare*		*phere*

The oldest form of the Greek language is found in Homer's *Iliad* (900 B. C.). The language is more rich in vowel sounds than Sanskrit, but Sanskrit has a wealth of consonants not found in Greek. In its wealth of vowels Greek is said to be nearer to the original IE. (UHLENBECK). Both began with *pitch* or *tone* and gradually came to give it up for *stress* or *accent.*

Four stages are recognised in the history of Greek :—(1) Homeric or ancient Greek, (1000 B. C.). (2) Literary or Classical Greek, (3) Mediaeval Greek and (4) Modern Greek since 1450 A. D. There were many dialectal forms of the Greek language. Doric had broad vowels and consonants praised by Milton. Homer wrote in the Aeolic and Ionic whereas Attic became the medium of Classical Greek literature Attic was the dialect of Socrates, Plato and Aristotle and the dramatists, Aeschylus, Sophocles and Euripides. It became the standard language of ancient Greece of the Classical period from 500 B. C. to 300 B. C. After the rise of Alexander the Great, Attic became the common dialect of Hellenistic Greece

with the new capital at Alexandria as its centre. The "New Testament" was written in this dialect which about 300 years A. D. came to be called Neo-Hellenic Greek.

Doric, Ionic and Cyprian preserved the IE broad vowel *ā*; as in μᾱτερ, *māter*. In Attic *ā* is changed to *ē* as in μήτηρ *mēter*.

Modern Greek shows many vowel and consonant changes. It has adopted stress and given up pitch or tone. In consequence it has lost much of its sonority for which it was famous in ancient times.

Greek did make a bid for becoming the International language of antiquity. In fact Greek was understood as an international language on all the four sides of the Mediterranean. In the days of the Roman Empire, Latin was the language of the Law courts and the church. But, Greek was spoken by business men in Greece, Asia Minor, Syria and even in Egypt. It was spoken in the North Western border of India 250 years before Christ.

It was later replaced by Arabic and Turkish languages in Constantinople. (1450 A. D.).

A, α	alpha,	short and long *a*	अ, आ	Ξ, ξ	xi = *x*	as in *axiom*	क्ष्
B, β	beta,	= *b*.	ब्	O, ο	omicron =	0, ŏ or ō	ओ, ओ
Γ, γ	gamma	= *g*.	ग्	Π, π	pi =	*p*.	प्
Δ, δ	delta	= *d* (dental).	ड्	P, ρ	rho =	*r* as in rhyme or Rhine.	ह्
E, ε	epsilon	= *e* (thé).	इ	Σ, σ, *s*	sigma =	*s*. The from *s* is used at the end of a word; σ elsewhere.	स्
Z, ζ	zeta	= *z*.	झ्	T, τ	tan = *t*.		र्
H, η	eta	= *e* = *a* in *care*.	ए	Υ, υ	upsilon =	*u* short and long (y).	आयू
O, θ	theta	= *th* (dental).	थ्	Φ, φ	phi =	*ph*.	फ्
I, ι	iota	= *i* short and long as in *stadium* and *police*.	इ, ई,	Χ, χ	chi =	*kh* as in *chorus*.	ख्
K, κ	kappa	= *k*.	क्				
Λ, λ	lambda	= *l*.	ल्	Ψ, ϕ	psi =	*ps* as in *eclipse*	प्स्
M, Σ	mu	= *m*.	म्	Ω, ω	omega =	o as in *ode* or *not*	ओ, ऑ.
N, ν	nu	= *n*.	न्				

(1) The transcription of the typical Greek consonants is as follows :—

$\chi = ch,\ kh$; $\xi = z$; $\phi = ph$; $\xi = x$; $\gamma\gamma = ng$; $\theta = th$.

(2) Equivalents of simple vowels :—

$\varepsilon = e$; $\eta = e$ or a; $\alpha = a$; $\iota = i$; $o, \omega = o$; $\upsilon = y$; final $\iota\alpha = y$ in English,

(3) य् (*y*) and फ् (*f*) are not found in greek.

NOTE 2

Indo-Aryan, Germanic and English

Our knowledge of the growth and development of English depends, to a considerable extent, upon our understanding of the new line of development followed by the Germanic dialects in North-Eastern Europe. It is now a well established fact that Germanic is a branch of the great IE family of languages which must have been spoken by the Aryans in their early days. But Germanic exhibits a complete breaking up of the IE phonetic system. This must have been due to what Sylvan LEVI calls the 'interference of the substratum' with the new language of the invader. In North Germany, this substratum was a highly civilized substratum consisting of a racially mixed population. Among them were the Nordic people with blue eyes and golden hair, and they had all the characteristics of the Vikings in them. They accepted the Germanic language but changed its articulation and grammar. The weather was partly responsible for the changes. There must also have been physiological reasons to account for them. The changes from IE to Germanic were mainly three:—

1. There was a change in the consonant system,
2. There was a change in the vowel system,
3. There was a change, replacing the pitch or tone by stress or accent.

The implications of these changes were enormous. It must be remembered that the West Germanic people were a vigorous and practical race without any linguistic traditions behind them like the Goths. Their own speech–the Germanic–was a rough–hewn instrument fit for every–day use and not a *coine* or a literary or artistic instrument of expression handled by

men of learning like Bishop Wulfila's Gothic. While learning the language of their IE invaders they showed the usual tendency to avoid the difficult, over-simplify the easy and to level and normalize the unfamiliar element in it. The Northern climate also played its part in changing the sounds of vowels & consonants.

The vowel and consonant changes can be studied in the following examples from IE and Germanic words:—

I IE *p* was pronounced *f* in Germanic.

IE.	Ger.	Eng.
Sk *pas'u*	*fihu*	*fee*
Sk *panj*	*funf*	OE *fif, five*
pri	*frei*	*free*

II IE. *t* ..... *th* .....

tri		*three*
tanus	*dunn*	*thin*
vartate	*werth*	*weorthan–worth*

III IE. *k* „ „ h,gh, „ „ „

kṛd–hṛd	*herza*	*heart*
kanīyas = *new* } or A. *ghi* = open }		(*be–*) *gin*

IV IE. *p* „ „ „ *p* „ „ „

dhub	*tief*	*deep*

V IE *d* was pronounced in Ger and Eng *t*.

IE.	Ger.	Eng.
pad		*foot*
dis[1]		*teach, token*

VI IE. *g* „ „ „ „ G.& Eng *k*

jānu	*kneo*	*knee*
yugam	*juh*	*yoke*
jīrṇa	*chorn*	*corn*

VII IE *bh* „ „ Ger.& ENG „ „ *b*

bharāmi	*beran*	*bear*
bhlo	*bluomo*	*bloom*
bhandh	*bintan*	*bind*

VIII IE. *dh* „ „ Ger. & Eng. „ „ *d*

dhe		*do–deed*
vidhavā	*witava*	*widow*
dhruṣ	*turran*	*durst*

IX IE. *gh, h,* „ „ Ger. & Eng. *g*

hansah	*gans*	*goose*

According to recent writers on the subject this sound-change, it would seem, came into being between 400 B. C. and 250 B. C. An explanation of all these changes will be found in Father's book in the exposition of Grimm's Law.

Corresponding to these consonant changes there was a reduction in the number of IE vowels taken over by Germanic; and *a* and *o* could be interchanged. Germanic retained the IE diphthongs however, many of which were lost by Sanskrit. Thus Germanic and English are on the whole richer in vowel harmony than classical Sanskrit and the modern Indian languages. We have the following vowels in Germanic:—(1) *a, e, i, o, u*; both long and short, and the diphthongs *ai, au, an, am, ar, al and ei, eu, en, em, el* etc

A further change observed in Germanic is that the vowel loses its independence of the neighbouring consonants and assumes the quality of the consonants between which it is sandwiched in a word! But the most revolutionary change is the loss of tone or pitch and its displacement by stress or accent. This changed the entire structure of the words and their relations in a sentence. The Germanic substratum accepted the IE language, but while accepting transformed it almost out of recognition by introducing the Scandinavian accent! It stressed the initial parts of the words and consequently the remaining parts were slurred over: Thus Latin *palatium* became *pfálz* in Germanic and *palâce* in English; so Sk. *bharet* Ger bairái Eng *bear.*

The creation of accent changed the entire system of grammar which IE seemed to obey. Vowel gradation and the importance of tone were almost entirely given up. Even the suffixes were distorted and case endings like the acc.—*n*—were dropped. A prominence was given to the root and the idea it expressed; the inflections and terminations were slurred over or eclipsed. In IE the noun and the verb were separate

entities, clearly distinguished from each other as they wore badges of the classes to which they belonged. Now this distinction was levelled up and soon the noun could be used as a verb and *vice versa*. This was a discovery of the greatest importance; it made Germanic and, later on, English a much more "portable" language than any other language of the entire IE family.

So the inflexions fade out; the verb and noun are interchange-able; and tense expresses time in the new language called the Germanic? Moreover a new helping tool-almost like an omnibus spanner is forged in the rough and tumble of practical life in the form of a new combination of a participle plus the verb *to be* or *to have* (e. g. *quithan ist* = it is said.). This is the auxiliary verb formation not known to the IE.

Among other changes, we must also record the loss in Germanic of the dual and the reduction in the number of cases to four: Nom, Acc, Gen, and Dative. IE denoted the gender by adjectives; Germanic by a change in the form of the noun itself. IE denoted grammatical relations by the use of inflections; Germanic shows them by the simple device of the order of the words in a sentence. In IE, words were grouped round their roots like iron filings round the poles of a magnet. Germanic words have a life of their own and are independent of their roots. "Love" can be used as a noun as well as a verb: *e. g.* Eng. *I love you*; *My love for you*; Germanic *Ich liebe dich, Miene Liebe fur dich.*

Germanic numerals go back to the IE numerals which are now called the "inter-national numerals." This is already explained in Father's book *q. v.* (IE *sem* has remained in Ger. and Eng. *simplex* and in Eng. *four-some*).

Germanic vocabulary was enriched by borrowings from a whole continent-ful of languages and more particularly from Baltic, Slavonic, Italic and Celtic. Thus the ground was prepared for the advent of English which is fundamentally an

IE language. It has however a simplified grammar. It is stream-lined for a world-wide commerce of ideas and culture. How English achieved it will now be explained in the remaining part of the article.

That the IE is poor in the vocabulary of technical actions or movements is easy to demonstrate. (IE *tasti* = makes cp. Eng. *textile*). The names of animals known to the IE speaking groups are easily recalled; *asva, eqquus, hippos*; *cuna, canis, hound*; *gauh, cow*; and *avih.* The names for the limbs and organs of the body are common to all the dialects. So are words denoting family ties and blood relationships. But the IE dialects do not have a common word for God. There are no common words for religious rites as well. But Sk. *śradhā* and Lat. *credo* and Sk. *brahman* and Lat. *flamen* probably indicate a common primitive IE source (PIE). So there is correspondence between Sk. *ratha* and Lat. *rota*; and between Sk. *nauh* Pers *nav* Gk. *naus* (from which Eng. *nautical*) Lat *navis* (Eng *navy*) and Icelndic *nor.*

There are common words for copper: Sk. *ayas*, Zend: *ayo* Goth *aiz.* *Gold* is found in Western IE dialects Goth *gulth*, O. H. G. *gold* Old Salv *zlato.* Silver in Sk. is *rajatam* Zend *erezatum* Gk. *argetum.* But the Eng. word *silver* is a borrowing from some unknown non-IE source, probaby celtic.

I PRE-HISTORIC BRITISH CIVILIZATION:—

A very ancient civilization existed in Britain even in the Stone Age. They had been farmers and knew most of the cereals that were known to the Indo-Aryans. They worshipped gods and a Goddess and were not peculiarly patriarchal in their family system. The subordination of women was not known and seems to have come with the fear of foreign invasion. The custom of Sati seems to have been practiced by the ancient Britons. They had evolved indigenous political and social institutions. Anthropologists call them the Iberians

('long-barrow people') who must-have settled in Britain form North Africa *via* Sicily and Gibralter.

II THE CELTS AND THE DRUIDS

These ancient Iberians, it seems, were defeated by a 'round-barrow people' who brought gold, lead, tin and amber with them. They were weavers and makers of pottery, and knew farming. They built the Stone-Henge and other religious relics and are commonly known as the Druids. The Celts were in possession of Britain before 600 B. C. They were pushed by the IE speaking Germanic races to the West and the North. The Romans found them with tatto marks on their bodies and called them the Picti.

III THE TEUTONIC INVASION OF BRITAIN.

In historic times Britain is known to have been invaded by (1) the "English races" of North Western Germany i.e. by the Angles from Anglen, the Saxons of Saxony and the Jutes of Jutland all coming from the territory near the mouth of the Elbe. They came in waves of invasion and penetration lasting well over a century. The Germanic people, as they are called, were a "military aristocracy" with the king as the centre of their social and political life. His retainers served him in life and by death. They were ambitious of political expansion and followed their leaders to the end of the earth or the sea. This history of the Germanic races is reflected in the earliest "English poems" like *Beowulfe, The Wanderer* and *The Sea-Farer.*

These invaders were known as the Angles, the Saxons and the Jutes, as has already been stated. The migration of the Angles to Britain seems to be a complete migration like that of the Parsis to India. They left no traces of themselves in Germany after that event. The first to land were the Danes who under their leaders Hengest and Horsa (for they were very fond of selecting their names form the animal-horse-) made a landing in Kent between 440 A. D. and 455 A. D. It

would be a mistake to suppose that the invaders were a barbarous horde looking for plunder and rapine. They could work in bronze and silver, were humane and worldly in their outlook and were very fond of horse-riding and writing. At any rate, this is the impression left on us by their sea-faring epic, *The Beowulfe*. The Teutonic nations who invaded England pushed the Celts back to the west and the North. There must have been a good deal of word borrowing on either side during this period. The invaders settled down in England in four chief settlements and this gave rise to the creation of four chief dialects of the Old English language: (1) The Angles had settled in Northumbria and spoke the Northumbrian. The Jutes spoke the Kentish dialect and the Mercian; and the Saxons spoke the Sanxon or Anglo-Saxon and Mercian.

St Augustine was sent out to England by Pope Gregory in the closing years of the 6th century. King Ethelbert of Kent granted him permission to preach the Gospel of Christ. Later the King himself bacame a Christian. In about a century the whole of Britain was converted to Chrstianity.

IV THE DANES

The Danish inavsion of England by Scandinavian Vikings who were heathens begins from 787 A. D. and lasted for a century. The struggle for supremacy between Saxon and Dane was long and hard. At last, under Alfred the Great, the Saxons brought the Danes under their control and the latter settled in East Anglia and became Christians. The Danes came back again under Svein and the Saxon King after making vain attempts to buy the Dane with gold (whence Dane-geld) fled to Normandy for shelter. Cnut carried on the struggle with the Saxon king Edmund and the country was actually partitioned for a time. Edmund died soon after the partition and Cnut regained his supremacy over England south of the Humber. The Danish kings thus ruled over England upto 1042 A. D. Then came Edward the Confessor, son of Ethelred

and Aelf-gifu, who was half a Norman. The date of the Norman Conquest was 1066 which thus marks the termination of the Danish-German supremacy over England.

This historical sketch will make the philological development and growth of the English language easy to understand. It is now established that these Germanic races were the speakers of one branch of IE in its eastern European form, namely the Germanic, and that, as they laid the foundations of the history of England they also laid the foundations of the English-language as well. We must make one point very clear at the outset. In all our discussion on IE we have assumed that there is no reference to racialism. In fact Aryan is that Aryan does. The Germanic invaders of England spoke an Aryan language which had 'spread like a belt round the Northern Sea'. It is now known that their language had, with certain exceptions, the same or similar vowel and consonant system. The possessive case was denoted by *s, es*, corresponding to Sk. *as, sya.* The second person singular of verbs was denoted in Teutonic by *st, est*—Sk *stha.* Verbal formations of the past tense are similar: Sk *ana*, Eng *en* e·g. *beat, beaten*; The number of words which can be proved to have a common origin is enormously large: The limbs of the human body can be mentioned by making use of words having a common IE origin. Words showing blood relationship are also common. There is a large number of words dealing with agricultural & rural life which are also common. The following list will prove useful :—

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1. Many more word-resemblances are pointed out by sweet: ₀eq° Finnish *sanakirja* = word-book cp. Sk *svana*, Ir. *son* = word. Sk *svara* OE *andsware* Eng *answer*. Finnish *saarna*, Eng *sermon*. *Kirja* = mark, cp. *koro* = notch. cp. Pers. Mar. Sk *vṛ* = to choose, Eng *will*. Eng *get* = A. *ghed* = Sk *khād*. Eng husband = *hus* + *bua* = house dweller Sk. *bhū*

2. O. E. *swote* adv. Eng. *sweet* Sk. *swādu*, Gk *hādus* L. *suadere* Eng *persuade*.

Eng. *quick* Sk *jīva* Gk *bios* OE *cwicu*. —Ed.

IE or Aryan	English	IE or Aryan	English	IE or Aryan	English	IE or Ayran	Eng.
(anu)-swara	*answer*	*dehas–daeza*	*dough*	*kaniyas*	*be–gin*	*pṛswa*	*frost*
antar–	*inter–*	*diś*	*teach–*	*lubh*	*luve–*	*pasu*	*pecu-fee*
bandh	OE *bindan*		*–token*		*–love*	*pad*	*foot*
	bind	*dāgha*	*daeg–*	*lip*	*life–live*	*ratha*	*rota*
bāhus	*bough*		*day*		Russ. *lipkij*	*stan*	*thunder*
budh	*bid*	*gṛdh*	*greed*			*sthiti*	*stead*
bhar–	*bear–*						
	–barn	*haṁsa*	*goose*	*madhu*	*meed*	*vid*	*wit*
cakra	*cycle–*	*idum*	*it*	*mṛta*	*murder*		*witan*
	wheel	*juṣ*	*choose*	*nabhas*	*nebulous*	*vidhava*	*widow*
dha–dhe	*deed,*	*jṛṇa*	*corn*	*naptṛ*	*nephew*	*vābha*	*web*
	do	*jwal*	*coal*	*pri*	*free*	*vartate*	*worth*
duhitṛ	*daughter*	*kanyā*	*hen*	*poorna*	*full*	OE	*weorthan*
						vāhana	*waggon, wain*
						vañcchā	*want*

1 (Most of the etymologies given above in this note will be borne out by glance at the brackets in the C. O. E. D.).

These are not mere resemblances chosen at random; the comparisons yield a law which the words have followed while their speakers moved from one continent to another. Thus the languages show a clear relationship with the IE group; in fact they are branches of the great IE family whose history has been traced at least to 5 thousand years B. C. Germanic or Tetonic is the link that joins English with IA family of Languages.

The Tetonic or Germanic people whose descendants invaded England as Angles, Saxons the Jutes and later the Danes were sun-worshippers. They also worshipped the Moon (Sk *candramas*) Thor (*In-dara*) and Woden (*Budha*). They were a great sea-faring race of real warriors. They loved horse-riding and adventurous life on the high seas as their epics show. They were white, tall, well-built. They had an open, free and noble nature, and regarded valour as the highest value. They called themselves *wiros* i.e. *heroes*. Freedom was the primary condition of their life, the very breath of their nostrils. To die while fighting on the battle field was regarded an honour; one who drank wine in a goblet or chalice made of the enemy's skull was sure to go to heaven.

Space does not permit us to treat fully the influence of Latin on English which was tremendous. The most obvious quality of the Romans was their *gravitas* and this gave them a capacity to organise a state and a church. Words dealing with these institutions were acquired by English in its early contact with Latin. e. g. When St Augustine converted the English people they already knew the meanings of the words *saint*, (L. *sanctus*), *chalice* (L *chalix* Sk. *kalaśa*) and '*mas*' at the end of the word, 'Xmas (L *missal*-I go).

The Norman Conquerors enriched the language by giving it the vocabulary of law and fashion. In English the names of the beasts are Anglo-Saxon; e. g. *bull cow* (IE *gows*) *ox*

IE *uxan*). But the names of the rich foodstuffs prepared from their meat are Norman-French: OE *bull*, NF *beef*; OE *deer* OF *venison* OE *swine* NF *pork*. The Anlo-Saxons remained farmers and labourers while the Normans shared the sweets of the soil which, for them alone, flew with milk and honey. The words *supper, dinner, banquet, feast, lunch* are Norman French in their origin while the A. S. contribution to the vocabulary of the dinner table was *break–fast*. The Normans brought about revolutionary changes in state-craft and administration and made French the language of their law-courts. The Anglo-Saxon word *theod* was replaced by *people* and *guth* by *war*. Law brought in many terms with a special meaning: *judge, jury, assize* (IE *sad-sīdati*) and *marriage* for *wedding* (IE *vedhu*). The names of most of the flowers and fruits are Anglo-Norman or Latin in origin. Only *berry* and *goose-berry* are A. S. and of course *straw-berry*. Words for pleasure and delight are from Latin but *hope* is purely A. S.

In English vocabulary, words denoting human life on the material plane expressing thirst, hunger and the desires of the body are derived from Old English. Intense religious feeling and worship are expressed in English by means of words borrowed from the Hebrew language. Intellectual grace and mental culture require words derived from Greek. The place occupied by German and Scandinavian words in English is the same as the place occupied by *bread* and *egg* in English life. As Otto Jesperson has observed, an Englishman *thrives* in Scandinavian words; is *sick* in the same way; and when he *dies* it is in Scandinavian words that the event is recorded.

The most famous English grammarian of to-day is a Dane. He has pointed out the enormous debt that modern English owes to the Northern tribesmen. The Sanskrit words *vastra* & *karpata* do not only point out the different varieties of cloth but also the status of their wearers, in the bargain!

Costume and *drapery* and *clothing* also do the same work for English social history. Chaucer, who was a courtier and a poet uses Norman French words for clothing. The language of artists and artisans is Norman–French: *Art, colour, arch, beauty, pillar, palace cloister, caster*. The minor crafts use A. S. words: *baker, miller, tailor* are N. F. but the *cobler, fisherman* and the *shepherd* are accustomed to using AS words only.

The Chinese language is regarded as a good example of what is called Analytical language. In it every word is independent, and the meaning is fixed by its place in the sentence and not by a net-work of inflexions as in Sanskrit or Anglo-Saxon. For example, in Chinese the word-order '*n-go ta ni*' would mean 'I beat you', Sk *tvām aham hanmi*; but if the order is reversed the meaning would also change in the opposite direction: *ni ta n-go* 'You beat me'; but in Sk the change in the word order *hanmi tvām aham* makes no change in the meaning ! English in the A. S. period was a synthetic language like Sanskrit and used inflections and terminations. Granmar was more important than logic in English in those days. The tendency in Modern English is now definitely towards analysis. In this process, the speakers of English out-side the United Kingdom have naturally played a prominent part. As English had become a World Language, it had to be a portable language. Jesperson gives a very good and humorous illustration of this point. The Chinaman described an ocean liner for Jesperson in this way:—"*thlee piece bamboo two piece puff puff, walk along inside, no can see*". While thanking an English woman for her gift of coins showered on him from the top storey of the Taj in Bombay a snake charmer was heard by the present writer to say "*Acchyā mem-sāhib, thank, snake put water*?". Here is language denuded of all grammatical superfluities. It is as near 'the thing itself' as the speaker can possibly go.

Now, this process of analysis had started when Germanic discarded pitch for stress, cut out the number of terminations and inflections, restricted the number of cases to four and discovered the use of auxiliary verb-formations whenever necessary. This was not the product of any artificial movement inaugurated by man; it happened in the natural course of things and historical events. And English is continuing the progress from synthesis to analysis, from tradition to utility, from grammar to logic. It is the aim here to suggest that all this happened in consonance with the genius of the IE, but without any conscious effort, and as a result of the fact that English became a world language in the last century. Among the modern Indian languages what is known as Bazaar-Hindustani seems to be developing along these lines.

Modern, scientific discoveries have made time and space shrink in size and duration. Will it not be advantageous for our working languages to adopt themselves to the everchanging environment and cut their coat according to the cloth that is available? This, it would seem is the way to survival; and English has made this discovery already.

Those who love to watch small children blowing bubbles by means of a glass tube filled with drops of a solution of water and soap know the two stages of the play! First the child dips one end of the pipe in the solution and without taking it out blows gently through the pipe so that the whole surface of the saucer or dish is filled with contiguous though circular bubbles of soap-suds. In the second stage, these static bubbles that go nowhere do not satisfy. So the tube is dipped and filled with a film of soap-suds and then slowly removed from the dish. Then the child blows gently to produce separate bubbles, each bubble being a tiny, light, translucent globe floating in the air. These bubble-globes move with a freedom and lightness, and have all the splendour of the rainbow epitomised

in their brief and brittle existence. The case with words is similar to this. A short word or a short sentence can go round the world on the shortwave without much difficulty. It seems to be stream-lined for success in the future.

NOTE 3

SOME ANCIENT AND RECENT MARĀTHI BORROWINGS

Marāthi came into contact with Hebrew in the year 70 A. D. when some Israelites landed at Colaba. Their persecution at home by the Christians may have been one of the causes of their arrival here. Though our contact with them is very old, there has been very little borrowing from the Hebrew language The proper name of Sarah (Mar. *Sārābai*) and the word *sabatha* for Sabbath may be cited as instances of the borrowing from Hebrew. It would seem that as Marāthi was already rich in words expressive of religious fervour and spiritual life, there was no need to borrow words from Hebrew, a language rich in words of this description. In fact the Hebrew language enriched Modern European Languages with a large stock of such words.

Marāthi however absorbed a number of Persian and Arabic words fairly early in its development. This was the natural consequence of the gradually growing political influence of the Arabs and the Persians. Nāmadeva uses the the Pers. adverb *va*. In the Bahāmani period the following words displaced the Sanskritic words synonymous with them:—

Kaji, faisalla, insaf. *Pitā* was replaced by *bin*, *bhratār* by *kom* in legal documents; *Amātya* gave place to *hukumat-panha*; and *paik* and *naik* became *havildar* and *jamadar*.

Persian terminations *ana, vala, khora, dara, navisa, banda, manda* are still doing yeoman service to written and spoken language. *Patra* was dropped in favour of *kāgada* or *kāgaj*

Marāthi still uses a number of Persian prefixes and suffixes:—

1. *ī*–मैत्री *maitrī*, तोंडी *tondī* दोस्ती *dostī*. 2. *gī–kī–akī*–पोटगी *potāgī*, निमकी *nimakī* पाटिलकी *pātilki* गांवकी *gāṁvkī*.
3. *gār–kamagār* कामगार, महितगार *māhitagāra*. 4. *khāna*–खाना छापखाना, कारखाना, *cchāpa–khāna, karā–khāna.*
5. *ji*–तबलजी *tabalji*; 6. *Dani–macchardaṇi, chaha–dani* (*kettle*) मच्छरदाणी, चहादाणी
7. *dar*–कंत्राटदार *kantrāta–dāra* is Marāthi through Eng. and Persian.
8. *khōr– śāke–khor* शंकेखोर *hekekhor* हेकेखोर *bundakhor* बंडखोर
9. We have also prefixes as in *beḍhaba, betāla, be–akali & nāpīk* (barren) *nādara* (not paying fees etc).

The outer ring of the Marathi speaking area came into contact with the Portugese along the Western Coast and in Goa in the 15th Century. This was the first modern contact with the speakers of a modern European language. The "substratum" took words from Portugese only to change their form to suit its speakers:—Port, *governer* became Mar. *govarandara*; *verandah* is Hindī *baramda* (NERHRU: *Merī Kahānī* in Hindi trans.). *Potato*, Mex. *patata* Mer. *batātā*; *alfonso* is *hāfūsa* (fruit); also *pao-roati, loṇacē, feeta, ghamelē, galabata*;

The French (Franks) were called *firangīs* in Marāthi. They gave many words denoting fashion and words useful in Military organisation: Among others we have *phāṇas* for lantern and *phāṇūs* for ordinary lamp which are more current in the Thana district than in Poona or Nagar. *Bāk* is Fr. *bench*. From the Dutch we have words like *spchopen* M. *isapikh*, and *spade* M. *ispida*.

The number of English loan words in Marāthi is the largest. The duration of our contact with English was longer than that with any other modern IE language. It covers 350 years; it was very close during the last 150 years. The number of borrowed words is not as large as might have been expected. There is however clear evidence of the fact that in borrowing English words, greater care was taken to approximate as nearly as possible to their original English pronunciation, owing to the spread of English education in the country during the last half of the period of British occupation. The 'substratum' however did add an element of humour unconsciously while treating the names of English fighters and politicians. Thus Elphinstone was pronounced *Ala-piṣṭaṇa*, Hastings *Istiṇa*, Goddard *Gājara*. An exhaustive list of English words cannot be given here; but a handful of words will exhibit the treatment these "guest-words" received on arrival:—A North Indian *bhayyā* who was my servant called the *income-tax-officer*, *com-tikas-hapsar*; *station* is pronounced *thesan* and even *thecan*; in Marāthī *plat-form* becomes *falāta*, and *lantern lalten* with or without the final *a* in Marathi. Mar. *hadel-happī* is the "*order arms-hordel hupp*" of the Jamādar; so *thaṇda tea* is not tea served from the refrigerater but a Marathification "of *stand-at-ease*"!

It is not to be wondered at that the German language could not be laid under contribution except in recent times. Most of the words are a post-war acquisition: *blitz* is fairly generally known; and *Luft-waffe* is a candidate for adoption yet. The Japanese *riksa* is quite familiar as *jin-jana-riksā*: *harā-kiri* was recently acquired. Our recent contact with China introduced names of various blends of tea: *jukuja* and *pekoe-souchong*. The number of Chinese words would seem to be greater on closer scrutiny, for our contact with China is age-old.

It would be interesting to trace the etymologies of some commonly used words in Mar. which show the presence of the austric element in the modern Indian languages :—

Mar. *mānjara*-a cat-is supposed to be derived from Sk. *mārjāra* which however in Vedic Aryan meant a peacock. Nor does the cat belong to the fauna of the Aryan '*Urheimat*' of the scholars. The Pr. *vanjār* suggests Sk. *vana-cara* as a probable origin. But the Austric *majjara* seems to possess a greater claim to that title. Therefore Sk. *mārjāra*, Mar. *mānjara*, was a Sanskritification of the Austric *majjara* when the Aryans saw the cat in Indian landscape. Similarly, Mar. *mākada*, Guj. *mankada* Skr. *markata* comes from Dravidian *mar* or *mara* = tree plus *kat* or *kata* = to jump. Brāh. *piśā* = a cut; cf. Mar. *pis-pis* or *fis-fis* as repetitive terms inviting a pussy-cat when not in her mood!

The word *baxi* in Mar. is a good example of the vicissitudes through which it has gone in its long history. It now means an officer in the army. It goes back to Chengiz Khan and his Tartars who called the Buddha *Bikśus*, "*baxis*". It then came to mean a scribe or clerk of the monasteries. In Baber's regime, it acquired the meaning of 'surgeon' or *śastra-vaidya*. In Western Turkey it means a court poet, while the Kazzaks of the Kirghiz Steppes denote a mantra-vaidya or an enchanter by it. During the Moghul Empire the pay-masters of the army were called the *baxis*!

Language is said to be fossil poetry. This is illustrated by the Mar. word *māru*, Per. *mah* Ar. *mas*—moon and *ru*—face; *māru*—face-like-the-moon.

Sk *putra-pota* gives Pāli *poto*; Nepali *pothi* means a hen; Malayālam *povo* (young one of a) serpent. Cp. Gk. *panros* Lat *parvus* all going back to IA *putraka*. Sk *latati* gives Hindi *lada-dha-rha-ka* Mar *leka*, Malayālam has *jhillaga*, *jhilla*-young or small cf. Mar. *chillīṃ-pillīṃ* Sk. *kuṇḍa*–

golaka-also means offspring with which compare IE *kurṇo* Sk *kuṇdan*. Sk *śiśu* IE *kesi*-swell. Do these etymologies help us in finding out the etymology of Mar. *mulagā*?

Mar. and Sk *kavi* have IE *que* Serb *cuvali* Lith *kavoli* and Goth *hausjan* as their IE parallels. Mar., Hindi *kirpaṇa* IE *qerp*, Gk *karp*, Lith *kerp* Mid. Eng. *carpe* connected with modern English *harvest*.

Mar *ātyā*, father's sister, has IE *atta* L. *atta* Goth *atta* Norw. *Edda*-great grand-mother.

I cite some more examples illustrating the phonetic laws. IE and Sk *darbha* remains a *tadbhava* word in Mar. but in Teutonic it is *turf*, Eng *turf*, Germanic *turba*. Mar *dhāma* Sk & IE *dhe* Anglo-Saxon *don* Eng *dome*. Mar. *paka* IE *peq* Lat *coq* Germ *choh*, *koch* Eng *cook* and *cake*. Mar and Sk *panka* IE *penqes* Ger. *fanne* Eng *fen*. Eng *token* goes back to Teut *teg*- Gr *deik*-IE *dec* Sk and Mar *ādesa*. Eng *ask* Teut *aistan* IE *ais aissk* Sk and Mar *iccha*. Mar *kamara* = waist L *cam*, (*camera*), IE *qem* = bend, *Cam* – (bridge) because the *Cam* is a winding river!

Some Pre-Aryan and Pre-Dravidian borrowings in Marathi

The resemblances between some Marāṭhi and Austric words were pointed out some years back by Silvan LEVI. The pioneer of Austric hypothesis–which is no longer a hypothesis but an established fact–is P. SCHIMDT who gives a closely scientific comparison between IA and Austric in his excellent *Introduction to Pre-Aryan and Pre-Dravidian*. The Austric group consists of (see India, language Map) Khmer, Annam, Khasi, Nicobarese, Muṇda, Santalese and includes the Polynnesian and Indonnesian among other Pacific languages of the south. The speakers of these languages would seem to have been pushed back or pushed out of the Peninsula by the IA invaders or their forerunners. There are many borrowings

from the Austric group both by the Middle and Modern Indo–Aryan.

Thanks to the researches of recent scholars, we are now in a position to state that there were three periods of Revival of Sanskrit in India :—I The period of the Sanskritization of Mahābhārata; II The Gupta Revival; III The age of Hemacandra Suri. The words from the southern or Austric languages must have crept in during one of these periods. The Marāthi borrowings are philologically the most instructive.

Mar	MIA or Sk	Austric
ऊंस	*ūsa*	*ikśu-daṇda sau* or *bus*
तांबोली	*tāmboli*	*tāmbūla*	*tam-bool,valu balu*
वाण	*bāṇa*	*baṇap*	*anan, pnoha, ponaha*
कार्पास,कापूस कापड,	*kārpāsa,kāpūsa* *kāpada,*	*karpata* *kārpāsa*	*kar, pasa, soka,* *tonka*
केळें, केळं	*keḷeṃ keḷam*	*kadalī*	*kalai, glu, gelai*
मातंग	*mātaṇga*	*mātaṇga*	*tonga, tunga, danga,*
सालपट	*sālapata*		*selupata, slupta,*
मकर	*makara*		*makara*
मर	*mar*		*mara*
अभ्रक	*abhraka*	*abhraka*	*abharaka, bhraka,*

Among the Pre-Dravidian words in Sk and Mar we have the following :—

Sk *sphyai* Mar *phavadē,* Mar *kāḷā-kutta* Pre-Dr *herekot.* Mar *us'ī* Sk *upasari*; Mar *khichadī* Sk *kṛsara* (*Pancavims'ati Brāhmaṇa*); Mar *das'ī* Sk *dasā* (*S'atapatha Brāhmaṇa*).

Also Pre-Dr *ohadī*-wife, *dos'ī*-old-woman, *kurūpa-fa-kurup.* Mar *rāmafala* = custard-apple = *rambai, rambatuna*; and Mar *hudakanem–hiḷke.*

NOTE 4

A NOTE ON MUṆDĀ

The influence of Muṇdā (spoken on the southern slopes of the Himalayas and round Chota Nagpur), is seen in the complicated system of tenses in Bihārī. It would seem that the first person singular and plural pronoun आपण (*āpaṇa*) is a gift from Muṇdari not only to Hindī and Marāthī but also to Gujrati *e. g.*

C. P. Hindī: *āpaṇa gaye the*; and, *ham gaye the*

Gujrati: *ame gayā hatā*; and, *apaṇa gayā hatā*

Marathi: *āpaṇa geloṁ hotoṁ*

Muṇdā has *abona* and *ale* = Hindi *ham*. But *abona* = the hearer + the speaker. Gender is not grammatical in Muṇda: living beings are masculine — irrespective of sex — non-living things are feminine.

NOTE 5: A brief note on Tokharian

Tokharian: This language belongs to Turfan in Central Asia. It is now an established fact it is a branch of the IE, and belongs to the 'centum' group. It has pronouns and numerals as in IE. The language has a smaller number of consonants than IA. In vocabulary it is akin to Sanskrit. Ms. fragments in Tokharian of the 6th Century A. D. were found in Chinese Turkestan. It shows a great influence of Ural-Altaic.

Sk.	Gk.	Tokharian
पितृ *pitṛ*	*patēr*	*pācar*
मातृ *mātṛ*	*mēter*	*mācar*

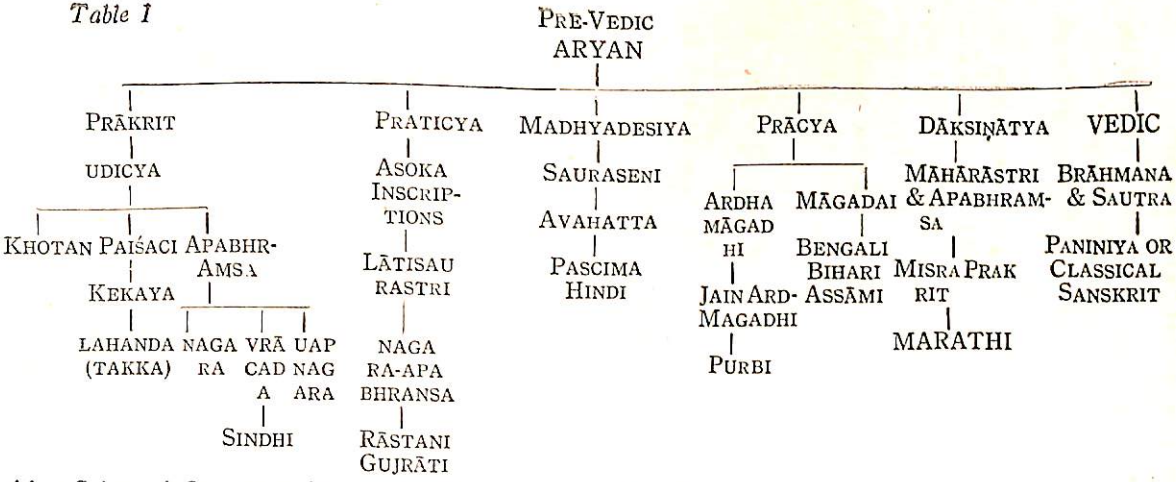
Sk.	Gk.	Tokharian
भ्रातृ *bhrātṛ*	*phrātēr*	*pracar* cp. Mar. भाचर (*bhāçar*) = nephew.
वीरः *vīraḥ*	*hērōs* IE *vir vīr*	
श्वन् *śvan* Lat *ancis*		*ku* (cp. Mar. *KūKū*! calling a dog that is missing to come and eat his bread!)

NOTE 6

Towards Portable Hindi?

Dr. S. K. Chatterji, illustrating the advantages of a working language over the comparatively encumbered literary language gives the following examples. The Hindi sentence *maiṅ-ne bhāt khāyā* when translated into English word for word means '*me-by rice he-was-eaten*'. Similarly Hindi '*maiṅ-ne rōtī khāyī*' would mean *me-by bread she-was-eaten.* These examples clearly show the difference between the two types of languages–viz. isolating and inflectional types. In plain English three words would suffice to convey the meaning clearly. *I ate bread* or *I ate rice*! And in what is called Bazaar Hindi it is actually expressed in three words as follows *ham rōtī khāyā* or *ham bhāt khāyā.* Language thus becomes 'portable' by giving up unreasonable grammatical traditions and putting logic before orthodoxy or prejudice. Germanic did it; English did it. Let us see what Hindi will do! Hindi comes after Chinese and English as the third great language of the world. It is actually the mother tongue of a larger number of men than is English and therefore it has a great future before itself indeed!

Table I



After Grierson's Languistic Survey of India

Table II

The figures to the right are based on the *Census Report* of 1931.

Language	Number of Speakers
HINDI	12,12,54,898.
BENGALI	5,34,68,469.
MARĀTHI	2,13,61,399.
PANJĀBI	2,46,60,680.
TAMIL	2,04,11,652.
CANARESE	1,12,06,380.
TELUGU	2,63,73,514.
GUJRĀTI	1,08,50,000.

Language	Number of Speakers
Malayalam	91,37,615.
DARDIC (Belucistan & Kaśmīr)	37,88,967.
TIBETAN & BRĀHMI	1,29,89,606.
MUNDA	46,05,071.
MON-KHMER (BURMA & NICOBAR)	7,33,006.

GLOSSARY OF TECHNICAL TERMS

ABLAUT, change or permutation of vowels in strong verbs to indicate change of tense, etc: *sing, sang, sung, song.* Also called vowel-gradation by modern English linguisticians. Some scholars call it *apaśruti.* (Chatterji)

ACCENT. The element in a word which determines its value in a sentence. A prominence given to a syllable by (1) a higher musical pitch (as in Aryan, Greek, Latin and Scandinavian) or by (2) stress (as in English, German, but not French) Sk. *plávas* a boat; Gk *plo-ós* = navigation. Pitch accent is also known as musical or chromatic accent. Cp इन्द्रं शत्रुः and इन्द्रशत्रुः

ACOUSTICS, pertaining to the sense of hearing. Just as phonetics is the science of voice as it is produced, acoustics is the science of sound as it is heard. In the production of sound change, both the speaker and the hearer are involved,. The three stages in speech-sound are (*a*) the speaker's situation (*b*) actual production of speech sound and (*c*) the actual vibrations of the ear-drum of the hearer.

AFFRICATES, consist of a stop followed by the corresponding spirant in the same syllable. (e.g. Germ. *pferd, zahn* and *kx* in Swiss dialects).

AGGLUTINATIVE, (Gk *gluten*, lime) a language consisting of simple words combined into compounds without change of form or loss of meaning, like the Turkish, the Tibetan– Morphological Table given below will make this clear:–

Language

Isolating or analytical	Agglutinative or synthetical	Inflexional	Incorporating
Old Chinese– & Burmese Mod. English.	Tibetan.	Finnish old–English, Sanskrit.	Mexican, Basque.

ALVEOLARS, sounds which are produced by the tongue touching the prominences caused by the roots of the teeth= Dental. *t, th, d. dh* and *e i* among vowels.

ANAPTYXIS = (*swarabhakti,* स्वरभक्ति) *i. e.* insertion of a vowel between sounds difficult to pronounce, eg. H. M. चन्दर *candara* for Sk चन्द्र *candra*; Indara for Indra. Eng. *elem* for *elm.* Also *daraśana* दरशन for darśana दर्शन. Sometimes a consonant helps:– *tumula* tûmbala तुमुल, तुम्बळ.

ASPIRATES: are distinguished from stopped sounds by the breath which succeeds them before another sound is produced. (*qh, kh, th, ph, bh,* are aspirates.).

CEREBRALS, are sounds produced when the point of the tongue is turned back: *ṭ ṭh ḍ ḍh*; *l* and *r*.

CIRCUMFLEX, Latin translation of Greek *perispomenos* = mark to indicate contraction, length or special quality of vowel. The Gr. grammarians had three words to denote this: *mésē, oksubáreia, perispōménē.*

CONSONANT, Sound of voice produced with the help of a vowel. In the case of consonants, friction is audible. Consonant = Stop. Some consonants in which friction is slight are called semivowels or syllabic–consonants (*l̥* and *r̥*) Sonant nasals are (*m, n*) eg. in calm, l m are as good as syllables.

Cuneiform writing, Writing on wedgeshaped background, or in the shape of wedges in ancient Persia and Assyria (O.E.D). and Mohenjo Daro.

DIALECT, Form of speech peculiar to a district, class, or person, subordinate variety of a language with distinguishable vocabulary, pronunciation or idioms. (O. E. D.). Arcadian, Ionian, Doric, Aeolic, Cretan are dialects of Greek.

DIPHTHONGS: combinations of two sonants in the same syllable. *ay, ae, ou,.*

EPENTHESIS, insertion of a syllable or letter within : word, or at the beginning of a word as in Avesta and Persian eg. Sk. भवति (*bhavati*). Av. *bavaiti*, Eng. *school* Pers *i–school*. Eng. *smiles* Pers. *i–smiles*.

FRICATIVE: consonant made by friction of breath in narrow opening, as *f, th,* Scotch *ch*.

HIEROGLYPH, (Gk *gluphe* = carving.) Figure of an object standing for a word, syllable or sound as used in ancient Egyptian writing. e.g. Figure of a vine creeper for an orchard or garden.

HAPLOLOGY: When one out of two similar syllables is dropped (Bloomfield) e.g. Lat. *semi modius* = *semodius*.

KUNSTSPRACHE: artistic speech used in prayers and songs as distinguished from the language of the masses, used by them for every day purposes, and dealing with the realities of life.

LABIALS, consonants, *p, ph b, bh,* and *o, u,* which require lip service to stop friction. Labio-dentals are *f* and *v*.

LIQUIDS, = *l, r,* and l̥.

DENTALS, consonants, *t, d,* (Skr. त्, द्) produced by the contact between the tip of the tongue and the ridge of the teeth. The contact takes place at a variety of points in the semicircle of the ridge. Hence the variation in dental consonants in all languages. त् द् द् ड् (*t, d, t, th.*)

LAUT–VERSCHIEBUNG: Sound shifting of the Germanic language, or Grimm's law in operation.

MEDIAL, one of sonant-mute group (*g, d, b,*). They come between (1) the surd or smooth group (*c, t, p,*) and (2) *gh, dh, bh, kh, th, ph,* rough or aspirate group.

METATHESIS, Phonetic change produced by transposition of sounds in a word. e.g. M. बनारस Sk. वाराणसी vārāṇasī

(Benāres) फाटक phātaka and फाकट phākata. See f. n. Pers. *maśahūra* M. *mahasūra.*

MORPHOLOGY: study of the forms of words; the science of the development of forms of word showing the part it plays in a sentence. Thus a word is made up of two elements, the stem or the root and the flections or terminations which link it up with other words in a sentence.

PALATALS: sounds produced by the tongue when approximated to the roof of the mouth. See palatal law, *k, kh, g, gh* and *e i.*

PHONEMES, are families of sounds occurring in a language as pronounced by a single individual. e.g. in the series *keep, cool, cot,* the three (*K*) sounds belong to the same family of sounds *k*-phoneme. It is a distinct unit of speech-sound. Thus we have *alpha*-phoneme, *beta*-phoneme and so on. 'A phoneme has been defined as a family of related sounds of a given language which are so used in connected speech that no *one* of them ever occurs in positions which any other can occupy in that language'. *e. g.* Eng. *keel, call,, king, queen; pin, bin thin, tin.*

Dr. S. K. CHATTERJI (*Bengali Phonetic Reader* p. 8)

'A speech-sound is a sound of definite acoustic quality produced by the organs of speech. A given speech sound is incapable of variation'. (*Ibid*, p. 7).

PHONOLOGY, science of speech sounds including the history and theory of sound changes in language. It associates meanings with sounds in a continuous speech event by comparative-methods.

PHONETICS, science of analysis and classification of the actual sound in pronunciation. This excludes the history and theory of sound change. Each language has its own phonetic individuality. Thus English has mixed vowels, no round

vowels as in French and is rich in hiss sounds. Arabic has back-throat gutturals like the inner (*k*). Harsh consonants are tolerated in English and Arabic; but Arabic excludes them from the beginning of a word (*e school* for *school*). French gives equal stress to all the syllables; English has one strong stress. Russian has no quantitative distinction of vowels. Spanish sounds are very harsh and brutal owing to its short vowels and falling intonation, whereas rising tones give dignity and power to English. Swedish is heavy and harmonious.

Varied word "tones" give a peculiar animation to the Chinese language "which resembles the twittering of birds". *N. B. Laboratory phonetics* is a new Science which studies the phenomena of speech sounds by mechanical aids like the *laryngoscope* or *X-ray Photography* and other recording instruments. Such a record of speech-sound is made by means of a *kymograph*. But this does not enable us to study the meanings of sounds by itself. This is the province of Phonology.

ROMANCE languages, are languages derived mainly from the *lingua Romana rustica*, or Latin spoken by soldiers and country people. They are *French, Spanish, Italian* and *Portugese*. Thus the word *fealty* is derived from *fides*, faith. But *chivalry* is from low Latin *caballus*, a horse.

SONANT, voiced, not surd i. e. capable of being sounded continuously, accompanied by vocal vibration. (e. g. *b, d, g, j, v, z*).

SURD, Consonantal sounds uttered with the *breath* alone and not the voice (e. g. *h, f, s,.*). √ = noiseless.

SPIRANTS: rubbing sounds produced by expiration of breath through a narrowed passage. To every stop we have a corresponding spirant. (*t* and *d*, have *th* and *dh*)

SPIRITUS ASPER: Is an unvoiced spirant in the glottis itself which is denoted in Greek by ' *See note on Greek.*

STOPS : or mutes are sounds in producing which there is a brief interval of absolute silence, (e. g. *k, g, kh, gh, q, qh, t, d, th, dh,* and *p, b, ph, bh,* are stops, and *a, o, u*).

SYNCOPE ; Word contraction by loss of vowel e. g. Sk. *rājan-rādnyā* (राजन् + आ – राज्ञा). Eng. *Symbology* for Symbology. M म्हाताल्डी, वराल्डा, (*varalda*), पल्डा (*palda*) for ओरडला (*oradla*), पडला (*padala*).

TENUIS (pl. ez), Hard or surd mute (*k, p, t* ; √ *thin,* Sk. *tanu.*)

VELAR ; Sound in which the soft palate (velum) takes a prominent part is called *velar,* which is a very guttural sound (*q, qh, g, gh,* are velars).

Voiced STOPS = consonants described as *kathora vyanjanas* by Indian grammarians : क् त् प् or *k, t, p,*

un-voiced stops = soft consonants or *mṛdu vyañjana* (मृदु व्यंजन) *g, b, d,* (ग ब ड) aspirates are consonants voiced with full breathing : (*gh, bh, dh* ; *kh, th, ph*)

VERKEHER-SPRACHE : " Speech of work " i. e. working language. In the give-and-take of daily intercourse language is subjected to wear and tear. It thus loses its grammatical and cultural purity which is retained in Kuntsprache. It is speech shaped in the mælstorm of daily circumstance.

VOWEL, sound or tone produced by the unimpeded passage of the breath, modified by the glottis into voice ; the position of the tongue and the lips determines the shape of the vowel ; *a e i o u* represent vowels though there are 13 simple vowel sounds in English. Sk. *Sawara* = an independent unit of voice. " Free passage of air through the mouth without causing audible friction ".—Daniel JONES

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